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A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

PUBLISHED BY
MITCHELL BROS. COMPANY,
(INCORPORATED.)

VOL. XI.

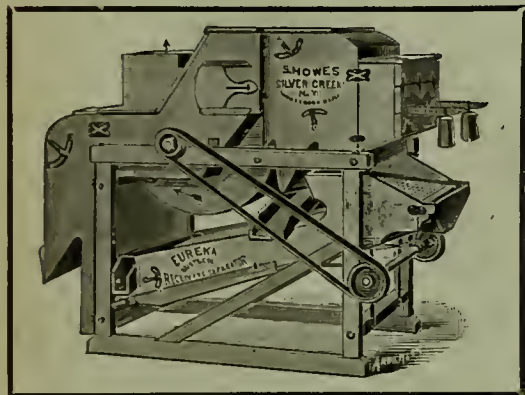
CHICAGO, ILLINOIS, MARCH 15, 1893.

No. 9.

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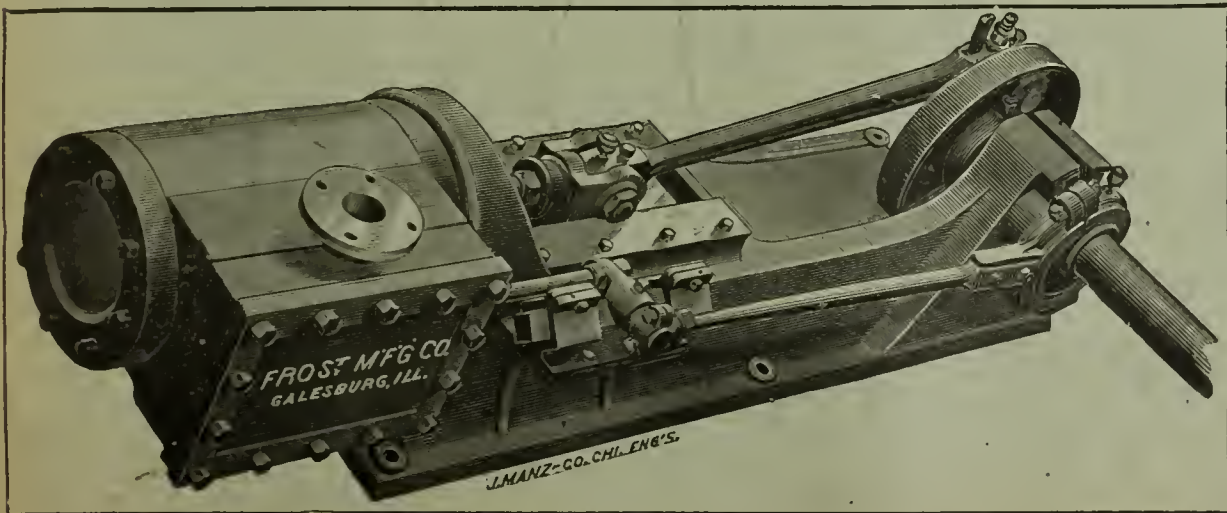


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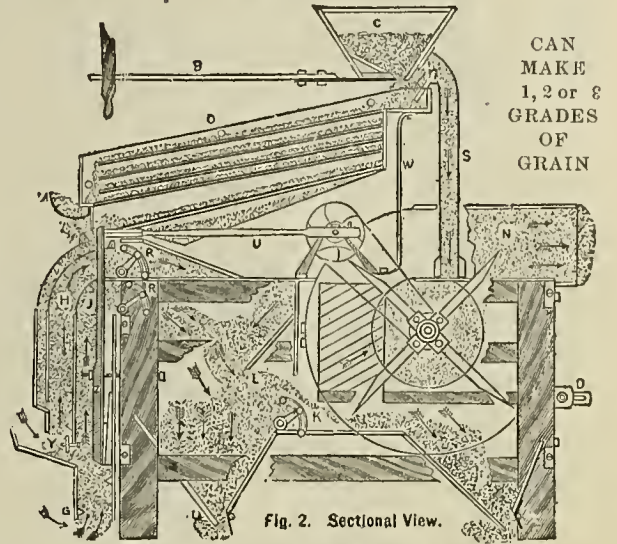
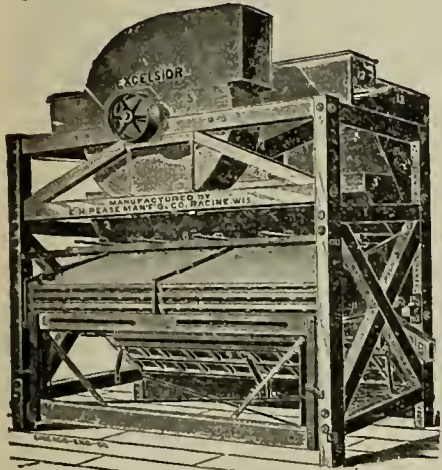


Fig. 2. Sectional View.

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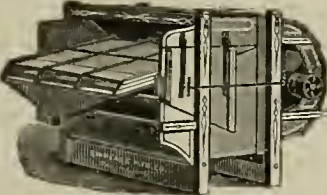
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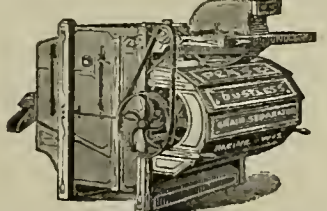
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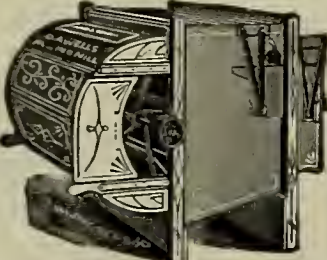
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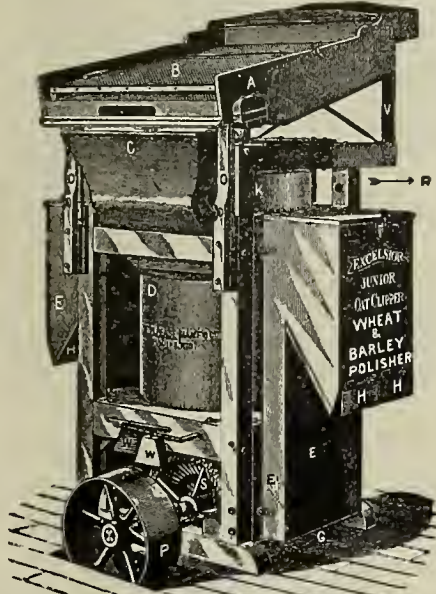
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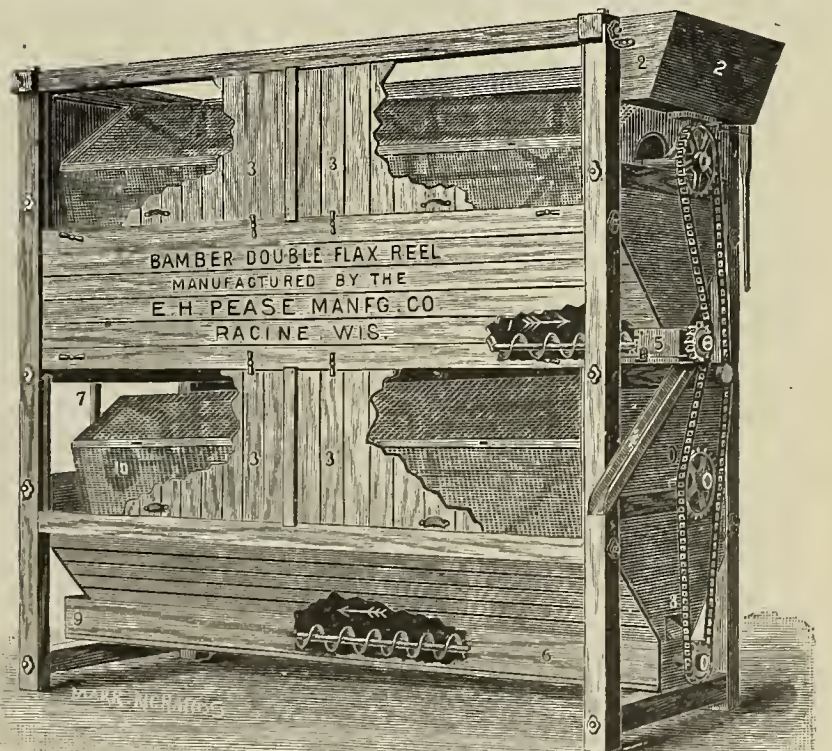
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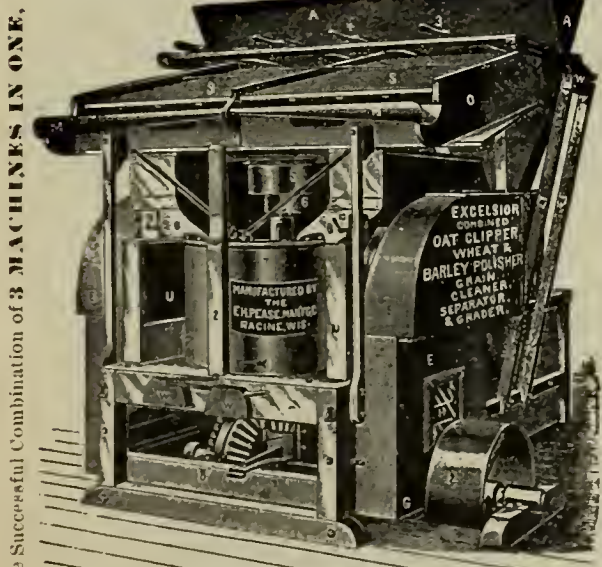
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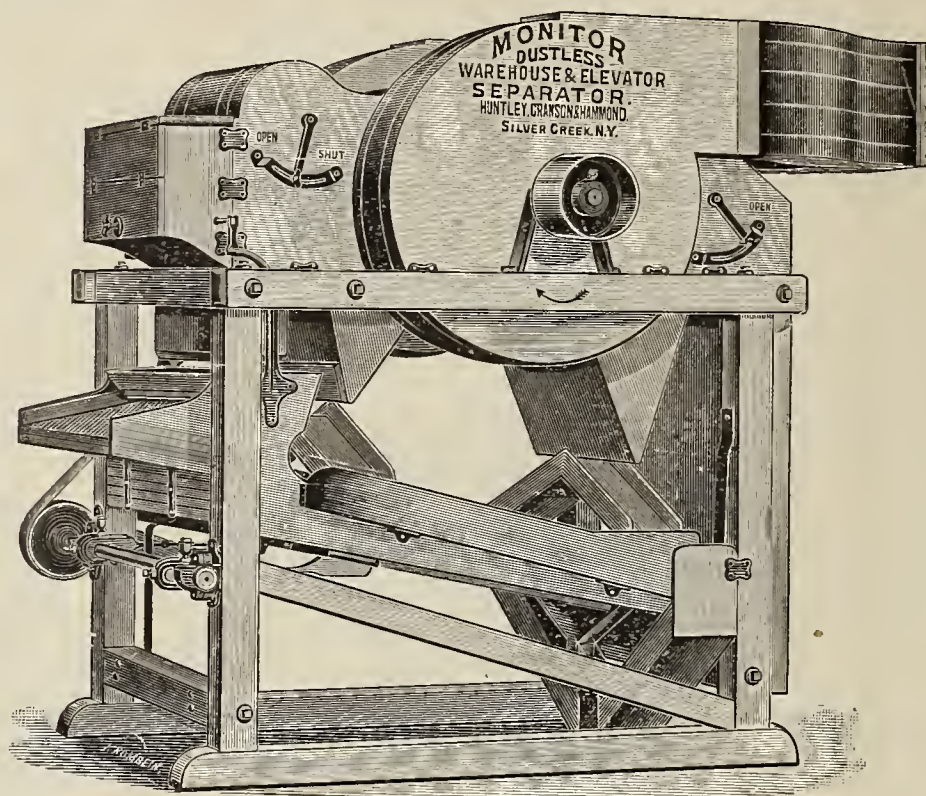
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CHICAGO GRAIN INSPECTORS AND INSPECTION.

A new chief has been appointed for head of the Chicago Grain Inspection Department, and grain shippers and receivers in all parts of the country are naturally on the qui vive to know who he is, what experience he has had to fit him for the position and what he proposes to do.

On this page is a portrait of George P. Bunker, who has been appointed recently by the governor to the very important and responsible position of chief inspector of grain for the city of Chicago. He was born in Moira, Franklin county, N. Y., July 1, 1850, where he resided until 16 years of age. From there he removed to Nevada, Ia. At the age of 20 he was elected city marshal of Nevada and served two years. At the end of his term he came to Chicago an entire stranger, and on the day of his arrival secured a position with the West Division Street Railroad Company as conductor. Aspiring to better things he left the service of the company after about six months and went to work for William Goldie & Sons as shipping clerk in their planing mill and box factory. At the end of two years he was made foreman of the factory, which at this time employed between 600 and 700 men, and continued in this position until the failure of the firm, which was caused by unfortunate real estate ventures of the partners. He then entered the service of the Reber Preserving Company as salesman, and continued with them three or four years, leaving their service and engaging in the preserving business on his own account, organizing a business in Cleveland, O., which is still continued as the Ohio Preserving Company. Selling out his interest in this he went to Milwaukee and established a large factory there; selling this out, after time, he went to Kansas City and established another factory, which is still in successful operation as the Wyandotte Preserving Company. The climate disagreeing with him there he again sold out and came to Chicago, where he has since resided. Upon his return to Chicago he engaged in the manufacture of vinegar and pickles, which he has carried on upon a large scale ever since. His extensive salting works and factories are located at North Judson, Ind., about sixty-five miles from Chicago on the Chicago & Erie Road. The goods are shipped from the factory all over the United States, entirely in carloads. Last year of the one item of cucumbers alone he packed 42,000 bushels, the product of 300 acres of land. This year he has arranged to have the product of 500 acres delivered

at his factory. In the city he supplies over 3,000 groceries and restaurants with his goods.

While prominently identified with, and holding important positions in the organization of the Democratic party in Cook county, Mr. Bunker has never been an aspirant for office, nor held any public position in Chicago, except a term of two years in the city council in 1888 and 1889. Finding that his business interests required

Gov. Altgeld in selecting him. We are confident Mr. Bunker appreciates the magnitude of the interests confided to his keeping and will strive to guard vigilantly the trust. The veteran supervising inspectors, William Smillie and Joseph E. Bidwell, will undoubtedly be retained permanently, as the department would be seriously crippled by their removal. The assistant inspectors will also be retained for some time, and if removed at all

it will occur only after new helpers have been educated into doing their work. Any other procedure would result in inefficient service and bring a flood of complaints and protests to the chief inspector's office from all parts of the country.

Financial interests of immense and far-reaching extent depend largely upon the ability and fidelity of the working grain inspectors, and the men now employed in that capacity in Chicago have done their work so well in the past that what is known as "Chicago inspection" is accepted and respected in every grain market in the world. Buyers and sellers alike have confidence in the inspection, and to substitute for the present inspectors—all men of long experience at their work—others who are novices in the business would work serious harm in the grain trade, and turn many an important transaction topsyturvy.

It is essential that the system of inspection should command the confidence of the business world, or expensive delays in the completion of transactions would result, and that would be but one of the consequent evils. If shippers of grain lost confidence in Chicago inspection they would seek some other market, and it is to the interest of every merchant doing business here to maintain that inspection at its present high standard.

In commenting upon the difficulties under which the work of original inspection is performed, and the absolute necessity of maintaining a high standard of efficiency among the inspectors, ex-Chief Inspector Price said in his last report, which is as yet unpublished:

"The requirements of each grade of grain are fixed by a rule established by the Railroad and Warehouse Commissioners; but as the inspection of grain is not an exact science, and as the grades necessarily approach each other by imperceptible degrees, and meet upon debatable ground, it will be seen that the written rules serve as a guide rather than an inflexible standard for the inspector; and that upon his judgment the final and practical application of the rule necessarily depends.

"It is therefore evident that an inspector must not only have that expert knowledge of the grain itself which



CHIEF INSPECTOR GEORGE P. BUNKER.

all his attention he declined re-nomination, and has been ever since disinclined to the holding of any political position until the offer of the very responsible one of chief inspector of grain came to him practically unsought.

That he will need a ripe judgment, rare tact, fine discrimination and a broad business experience in successfully managing the immense interests confided to his hands in the control of this, the largest and most important grain inspection bureau in the world, is very clear; but there is no reason to doubt that he will prove equal to the occasion, and fully justify the wisdom of

comes of years of experience, but that he must have such absolute familiarity with the requirements of each grade as to enable him promptly and accurately to give each car its proper grade and to state, clearly and concisely, the reasons which lead to his decision. An efficient and reliable inspector must also have evenness of judgment, the faculty of so carrying a grade in his mind that he will give a particular lot of grain the same grade he gave a similar lot a week or a month before, and a tenacity of opinion that cannot be affected by any comments of the interested parties by whom he is usually surrounded.

"In grading the grain that passes through his hands, every conscientious inspector is influenced by the fact that he is, in a certain sense, acting as an arbitrator between buyer and seller—that he is virtually making an appraisal of another's property and fixing the price at which it shall be bought and sold." Mr. Price puts the case of the grain inspector in a nutshell—he is "an arbitrator between buyer and seller," and the importance of his functions in one of the greatest markets of the world can hardly be overestimated. As he further points out, it is not to be assumed that any inspector is infallible, or that he will always adhere to established lines with unwavering accuracy. In fact there is a well-recognized tendency among the best inspectors—when not properly supervised or enabled in some other way to compare their work with that of others—to swerve, unconsciously and imperceptibly to themselves, from their established lines. But the Chicago system is armed at all points and provision is made even against the unconscious discrepancies of the inspectors.

Track inspection is carried on on fifteen different tracks, in as many parts of the city, and the fifteen track inspectors having no pole-star by which to "correct their reckoning," there would soon be as many different standards as men but for the "super-vising inspectors." There are two of these, William Smillie and Joseph E. Bidwell, who have been in the service of the department for twenty and fifteen years respectively. They are noted for their evenness and accuracy of judgment and their expert knowledge of grain. Every day they go from one track to another, watching the work of the inspectors and correcting in them any tendency they may see to deviate in one direction or the other from the well understood and established standards of the department. In this way the work is so directed that, although grain is received in Chicago from so many different sections of country and is grown under such diverse conditions of soil and climate, the average quality and market value of any particular grade is substantially the same in each of the twenty-seven different public warehouses in which it is stored, and may be confidently purchased—as it daily is—by Eastern and European dealers with no other knowledge or guaranty of its quality than the certificate of Chicago inspection. Exact and inexorable justice is meted out by the inspectors to all parties concerned and along this line alone can safety be found. The introduction of the political heeler into such a department of the state service would probably prove disastrous to the administration that attempted it.

Inspection of grain, defined as its "proper division into established grades, according to quality and condition," was first authorized in Chicago by the Board of Trade in 1858. Previous to that time grain arriving was bought and sold chiefly by sample "on its own merits," and whatever inspection was done was entirely private and without the sanction of any recognized public authority. The railways had not then extended their lines far into the prairies of the West and the receipts were almost entirely from the southern part of Wisconsin and the northern third of Illinois.

The first official report of grain inspection for a full year was that for 1859, showing as inspected on arrival 15,701,542 bushels, and as inspected out 13,517,683 bushels, or a total of 29,222,225 bushels. This report shows that the receipts in 1859 were only about one-sixteenth of what they were in 1891-2.

In 1871 the state government, pursuant to the require-

ments of the constitution and according to laws passed by the General Assembly, assumed control of the inspection of grain in Illinois, and the present inspection department was established. The report of inspection in Chicago for the first full year under the state—Nov. 1, 1871, to Oct. 31, 1872—shows as inspected on arrival 69,893,848 bushels, and as inspected out 69,732,039 bushels, or a total of 139,625,887 bushels.

From 1872 until the present time the grain traffic at Chicago has steadily increased in volume from year to year, keeping pace with the extension of railway lines and the development of the West, until it has reached its present enormous proportions. The growth of the inspection department, of course, has kept pace with the growth of the traffic, responsible positions on the force being filled from time to time from the "helpers" who are constantly in training under the more experienced inspectors.

In concluding an exhaustive report to the Railroad and Warehouse Commissioners in 1880, John P. Reynolds, then chief inspector, made some forcible remarks on the

less inspection the law provides for a Committee of Appeals to whom any one who feels aggrieved by the act of any inspector may appeal, first depositing the sum of \$5 as a guarantee of good faith. This is returned to the appellant in case the inspector is not sustained. The committee is composed of three disinterested men from the Board of Trade, who make a more leisurely and careful examination than can be given the grain by an inspector, and their decisions, which are conclusive and final, are generally accepted as fair and just. The present members of the committee are: Thomas H. Foster, W. M. Brainard and John Mansfield.

Engaged in the active work of grain inspection in Chicago there are fourteen track inspectors, twenty-seven house inspectors, and fourteen helpers. Each track inspector is stationed permanently upon the track of one of the roads entering the city, often at a point several miles from the heart of the city, and the grain is inspected in the railroad yards as it arrives. The men are kept on the tracks all the year around, whether the receipts are heavy or light, in order that shippers may have prompt service and have their grain handled on "Change the day it arrives."

The tools used by an inspector consist of a "trier" and a test scale. The former is a steel tube four feet in length, having a sharp end and elliptical slots at every few inches along one side of its length. It is fitted with a hardwood plunger, carefully turned so as to fit the tube closely but not tightly, its handle protruding about eight inches from the upper end of the trier, making the instrument, when not in use, look something like a Japanese sword.

The test scale is a substantial brass affair. It has a detachable bucket with a capacity of about two quarts. This bucket is filled with grain level with the brim, and when hung on the scale shows by a graduated bar the exact weight per measured bushel of wheat. The weight alone does not determine the grade, but is only one of several considerations taken into account by the inspector. The working hours of track and house inspectors are from 7 A. M. to 6 P. M. in summer, and from 8 A. M. to 5 P. M. in winter, but they are required to put in extra time when necessary.

Early in the morning the inspector and his helper, carrying their tools upon their shoulders, start to work upon the grain cars that have accumulated for their inspection during the night. The helper, with a steel crowbar and a car key, opens the door of the nearest car, and the inspector enters the car by the aid of a light ladder, which he carries with him. Then he plunges his long steel trier to the bottom of the car in half a dozen places, removing the wooden plunger slowly and carefully from the tube in order that the grain may have time to fill each slot in its side before the one next

above it is opened. He thus secures an accurate sample of the grain from top to bottom, and this is carefully poured out on the top of the carload, so that he has a section of the load lying in front of him, and can readily detect "plugging" or unevenness of loading.

If the grain is wheat the inspector weighs it in his test scale to ascertain the weight per measured bushel. Then he tests it with his nose for mustiness, smut, smoke, or weevil; with his hands for dampness, and with his eyes for dirt, or damaged, cut, bleached, blighted, or sprouted grains. Then, far quicker than it takes to describe the methods, he decides upon the grade and calls it out to his helper, with his reasons for grading it as he does. While the helper is recording this in his track book and writing a ticket to be nailed to the side of the car, giving the car number, kind of grain, grade, and date of inspection, the inspector passes on to the next car and goes through the same process.

A man known as the "receiver's agent" usually accompanies the inspector in his work or follows closely on his heels. His business is to watch the work and hold for reinspection any grain he considers erroneously graded, to take samples of all grain below the contract grade, and to carry them with the railroad "notices" to his employers, the commission merchants. These agents are paid by the commission men, and are not in any way connected with the inspection department. Each after



EX-CHIEF INSPECTOR P. BIRD PRICE.

qualifications and tenure of inspectors, which are equally applicable to present circumstances. He said: "It is safe to say that no person, whatever may be his experience as a general dealer in city or country, can safely assume to inspect grain under the rules unless he has intelligently studied the subject for years under the instructions of a trained inspector in daily practice. The service is peculiarly one of experts, and the only training school of the force is the 'helpers,' whose duty it is to open car doors; write up the inspectors' track books, place the inspectors' cards on the cars, and to study the subject of inspection with a determination to master it. Having acquired the necessary skill, and possessing unimpeachable integrity and good habits, the helper is ready for promotion whenever his services may be required."

In order to prevent mistakes inspection is never carried on in wet or dark weather except upon an order signed by the owner of the grain or his authorized agent, relieving the inspector of all responsibility for damage which may be caused by the wet weather or loss by such errors as are liable to occur by reason of darkness. Each inspector is under bond of \$5,000 and the amount of loss caused by his mistakes can be collected from his bondsmen, though this has seldom or never happened in the history of the department.

In order that no one may be wronged by hasty or care-

noon the inspector, with one of his helpers, sits down in the little office with which each of the inspection tracks is provided, and carefully copies into a report book every act of inspection done during the day, placing all cars of each grade together for the convenience of the main office. These reports are collected some time between 4 P. M. and 7 A. M. by a messenger, who visits all the tracks and elevators to convey the reports of inspection done the preceding day and samples of shipments from the elevators to the general office in time for the opening of business. A statement of the preceding day's inspection is posted on 'Change every morning.

At each of the elevators a "house" inspector is stationed to inspect all grain as it goes out and see that it is up to the grade the owner is entitled to. In the main office a force of clerks is kept busy transcribing the reports of the inspectors into the office records, compiling tables of statistics, and making out certificates of inspection for transmission to the country shipper or the Eastern buyer. Over 250,000 of these certificates are issued annually, which is in itself no inconsiderable piece of work.

There is a registration office connected with the department which keeps account of all grain going into or out of the public elevators. The records of the office are so arranged that the exact amount of any kind or grade of grain in any warehouse can be ascertained at a glance. No elevator can lawfully deliver any grain from its bins until the receipts representing it have been canceled by the registrar.

In order to facilitate business and furnish the owners of grain with their certificates of inspection as soon as possible after the work is done, a comprehensive system of telephone service is in use, connecting all the outlying stations with the main office by means of private lines and an exchange in the main office. It is estimated that in the single matter of interest on drafts—which by this system can be made one day earlier than by the regular messenger system—these telephones save many times their cost each year, besides greatly facilitating the ordinary routine of business.

The charges made by the state for the inspection of grain are collected by the chief inspector and are as follows: For in-inspection—25 cents per carload; 10 cents per wagon or carload; 40 cents per 1,000 bushels from canal boats; $\frac{1}{4}$ of 1 cent per bushel from bags. For out-inspection—50 cents per 1,000 bushels to vessels; 35 cents per carload to cars; 35 cents per carload, or 10 cents per wagon load to teams. The pay of second assistant inspectors is \$150 per month, of third assistants \$112.50, and of helpers \$70. All overtime, Sunday and "special" work is paid extra, but every dollar of such extra pay is well earned. No inspector is permitted, under pain of dismissal, to accept presents from persons interested in his inspection, or to handle any of the moneys collected by the department.

Ex-Chief Inspector P. Bird Price, whose portrait is given herewith, was born and reared on a farm in Sangamon county, Ill. He lived and worked on the farm until he came of age, when he engaged in the drug business, following this calling for a number of years until forced to abandon it on account of ill health. In 1887 he was appointed fifth clerk in the registration office of the grain inspection department here, and in 1879 he was made cashier of the department. In 1881 he became warehouse registrar, and in September, 1882, he was appointed by Governor Cullom chief inspector, to fill out the unexpired term of John P. Reynolds, who had resigned. Failing of re-appointment under Governor Cullom's successor, he engaged in other business for two years, but upon the accession of Governor Oglesby in 1885, he was again appointed chief inspector and has held the office until recently. Mr. Price has never held any political office except in the Grain Inspection Bureau, and he is not a politician in the accepted sense of the term. His conduct of the office has been unbiased by political considerations, and he has gained for himself the respect and esteem of not only his subordinates, but the grain trade generally. Under his administration the department has attained an enviable standard of efficiency, and his resignation is regretted by members of the trade, and many have publicly deplored it. Mr. Price will remain in Chicago and probably go into business for himself.

Supervising Inspector William Smillie has been familiar with the grain trade all his life, and has been on the inspection tracks for over twenty years. His friends are accustomed to say that he never did anything but inspect grain and that he never thinks about anything else. Cer-

tainly he does not bother himself with politics or any outside business, and the consequence is that he is accounted one of the most expert grain men in the world. It is a common trick of Board of Trade men to seek to confuse him with different samples of grain, but Mr. Smillie is not to be caught. Having once seen a sample he can remember it for an indefinite period, and his judgment in grading is as nearly infallible as human judgment can be. He is an invaluable man in his position and does splendid work in maintaining uniform standards of inspection among the track men.

Joseph E. Bidwill, the assistant supervising inspector, has spent fifteen years in the service of the department and is an expert among experts. He is noted for his evenness of judgment and trots a good second to Mr. Smillie.

Appointments and promotions of the grain inspecting force are made by the chief inspector and approved by the Board of Railroad and Warehouse Commissioners. The members of the latter board, as recently appointed by Governor Altgeld are: William S. Cantrell of Benton, chairman; Thomas Gahan of Chicago, and Charles S. Lape of Springfield.

ELEVATOR HEADS.

BY STEENSTRAND.

A grain elevator with defectively constructed elevator legs, boots or heads is a defective elevator; and in pro-

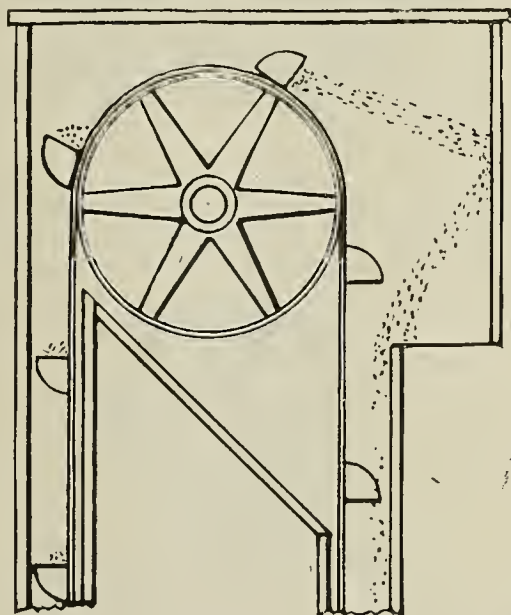


Fig. 1

portion as the elevating machinery is faulty just so is the elevator, as a whole, to be condemned. How necessary is it then that the elevating machinery should be well constructed and maintained in the best running order.

The conception some millwrights seem to have (judging by their works) of an elevator is simply that of an

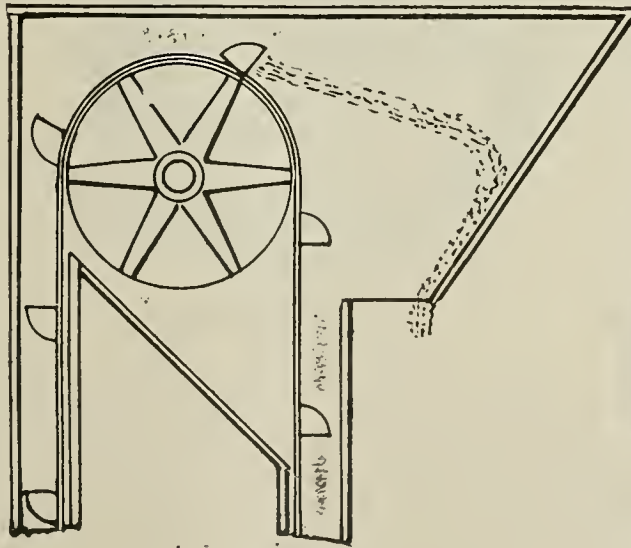


FIG. 2.

endless belt with buckets running over two pulleys, one placed above the other. That the size of the pulleys has anything to do with the practical working of the stand is an idea that seems never to have entered their heads. The shape of elevator heads is to them a matter of indifference. They have an indistinct recollection of some other elevator they have seen put up, and with this

hazy model in view they will put up another like it, barring some essential details which they have forgotten. Some of these elevators run right, but many run wrong.

When an elevator is speeded up to get greater capacity the defects of construction are discovered, or rather they assert themselves in ways that cannot be overlooked. It is found that the elevator discharges too soon, the grain flying out of the bucket before it gets around the top of the pulley and drops down the return leg. Sometimes it is necessary to entirely remodel the elevator legs, boots, heads, etc., to get results approximating satisfaction, but often a little change in the discharge at head will remedy the difficulty. Thus Fig. 1 shows a defective discharge, and Fig. 2 shows the remedy which is to put in an incline board. Instead of the grain being discharged on the vertical board and thrown back so as to descend the down leg it strikes the incline board and is guided to its proper place. Another remedy for the buckets discharging too soon is to put a pulley of greater diameter in the head. This costs more than to substitute an inclined for a vertical board, but it is more satisfactory when done. The best remedy is to have the pulleys large enough in the first place. Never use pulleys for elevators smaller than twenty inches. An elevator with 20 inch pulleys requires a couple of extra buckets and a few more inches of belting than an elevator with 16-inch pulleys, but the difference in the cost is too small to be worthy of consideration.

The cheap John contractor will throw up his hands in holy horror at the mere suggestion that 24-inch pulleys be used in elevator heads and boots. But the owner who may have to pass many days of his life running that elevator should hear with indifference all his assertions that "18-inch pulleys will do as well, will cost less, will take less power (?) and will take up less room." It is with elevators as with many other things; a good article that will always give satisfaction in economy and efficiency nearly always costs more than a poor article. It is also true that the best is in the end the cheapest and is always satisfactory.

IN MEMORIAM.



ANTI-OPTION BILL,

Only child of
Farmer Hatch and Miller Washburn
died in Washington, D. C.,
March 4, 1893.



Here lies our darling little Bill,
He's gone from those who loved him well.
It gives us a contented thrill
To know that he's stopped raising —.



REST FOREVER.

Sioux City, the "Corn Palace City of the World," is arranging to hold another of its unique and peculiar festivals this year. The date of opening is fixed for September 20, continuing until October 18, 1893, and the management promises attractions that shall far surpass anything heretofore presented. It is expected that many of the thousands who will attend the World's Fair can be induced to extend their visit to Sioux City and view the marvels in cereal decoration which will be so perfectly shown, and at the same time gain a correct idea of the greatest corn-producing territory on the globe.

A FARMER'S VIEW OF ELEVATOR WEIGHING.

A Manitoba farmer, writing to the *Nor'west Farmer*, under the head "Short Weight for Wheat," says: "There is one class of fraud, which, like the poor, we have always with us. I mean the weighman at the elevator. Whether the harvest be good or bad, he gets in his work. This is no personal issue, but a public evil, and, as such, should be faced and exposed. Farmers at many points along the line draw from the machine to the elevator, and put such blind confidence in the integrity of the weighman that they sometimes market their whole crop of wheat in this way, not knowing anything of the weights or the dockage for cleaning until they finally settle up. Then there is some interesting kicking. 'Well, but—great Scott!' says the farmer. 'I drew such and such a number of loads and this don't give me two bushels to the bag!' 'Oh, your bags weren't properly filled,' returns the weighman. 'Here's all the figures—look for yourself.' This amounts to 'Take it, or leave it.'

"When the dockage question is brought up there is generally more trouble. 'I can't clean that wheat for less than three pounds to the bushel,' says the buyer, who in country districts generally acts as weighman also. 'Why not?' says the farmer. 'By gosh! that wheat's as clean as any I ever sold.' 'Maybe so,' says the buyer, 'but some of it's worse than the rest. That machine ain't doing good work, I guess,' and the buyer remains master of the situation. What redress has the unfortunate farmer? He can raise a row, of course, but will that alter the amount of his wheat ticket? It's money he's after, not glory. Thus it is with many who sell straight from the machine.

"The farmer who sells by the load does not fare much better. He doesn't know exactly what his load weighs, but he can guess pretty near it, and, if he gets the top price offered for a load of first-class wheat, strange to say he feels under an obligation to the buyer, as if that gentleman had charitably assisted him, at a rather trying time. When, therefore, his ticket falls short of his expectations, he merely insinuates that there must be a mistake somewhere, 'something wrong with the scales, perhaps,' he hazards. 'Go and look yourself,' says the buyer. 'Sec those weights? Well, that's what you've got on. I'll do the straight thing with you,' he says, cheerily. 'Bring me another load this afternoon. That's the best sample I've seen this year.' And the confiding farmer goes doubtfully home, cheered in spirit, nevertheless, by the thought that his wheat is in high demand.

"And these men are not fools by any means, but they will not weigh their wheat at home before they take a load to market. You cannot make them to see that it is worth the trouble. Imagine a merchant selling his goods as a farmer sells his wheat—by guess! Could he expect anything but insolvency to be the outcome? But, because the farmer's hank is the soil, his drafts are honored without question, and his slipshod way of doing business remains uncensured. And this, I maintain, is another and important cause of the present agricultural depression hitting the wheat farmer and not the stock raiser. Who that has stood anywhere near a knot of farmers at a market has not heard one exclaim, 'Well, sir, he gave me two bushels to the bag to-day, and I reckon a man can't kick much at that!' Can't kick, forsooth! Why, if a man should steal \$5 from you, and afterward return you \$4, have you anything to feel grateful about to that man? Does a farmer realize so much money on his crop that he can afford to lose those very odd dollars which do actually represent his own profit? The expenses of a farm take annually a certain number of bushels of wheat, and only the balance, over and above this amount, goes into his own pocket. Yet so strangely callous and indifferent has he grown to imposition that this, the most vital point, is the very one he overlooks. And the remedy is so simple.

"The weighman is the natural enemy of the farmer. Looked at from his (the weighman's) point of view, his conduct is not unnatural. He cannot help the farmer and do well for his company at the same time. To swindle farmers right along, and yet pass himself off as the friend of the agriculturist; to defraud, and yet retain a certain amount of popularity, is a fine art, only acquired by years of practice in the cultivation of a bluff, hearty address. I should think a simple weighing contrivance attached to the separator would meet some of the requirements of this case—notably that of drawing to the elevator from the machine; but the evident remedy in

all cases is to weigh your wheat yourself at home. I have never yet heard a man who carefully weighed his wheat himself complain of being robbed at the elevator. Weighmen have the good sense not to risk a possible prosecution merely for the sake of adding another bushel or two to their pile."

WOOD SPLIT PULLEYS.

We have frequently been requested to give advice and suggestions regarding pulleys for special work and the kind needed for certain strains and loads. To answer many such questions, we have procured the accompanying wood cuts from a large and well-known concern.

Fig. 1 shows a pulley for very heavy work. It is

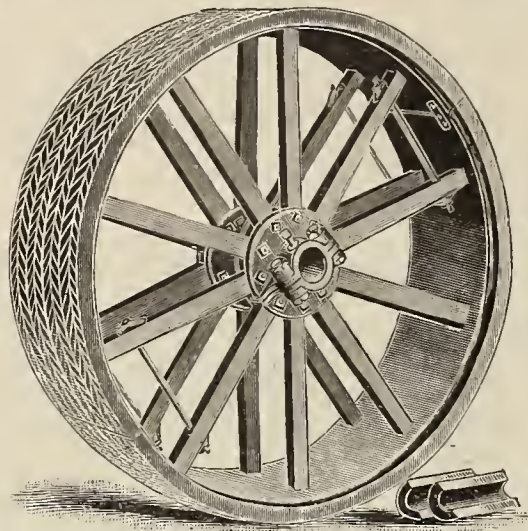


FIG. 1.

double armed. The arms are narrow, which results in a saving in power compared with pulleys whose surface resistance is greater. The surface resistance on this pulley is $2\frac{1}{2}$ ". These are bored to fit any size shaft, and are

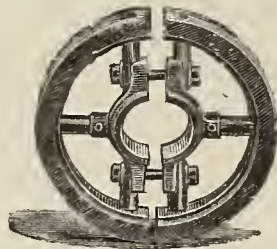


FIG. 2.

usually keyseated. Fig. 2 shows the same pulley for very light work, and Fig. 3 a section through the rim of an eight-arm pulley for medium work.

These pulleys are all split; their especial features are

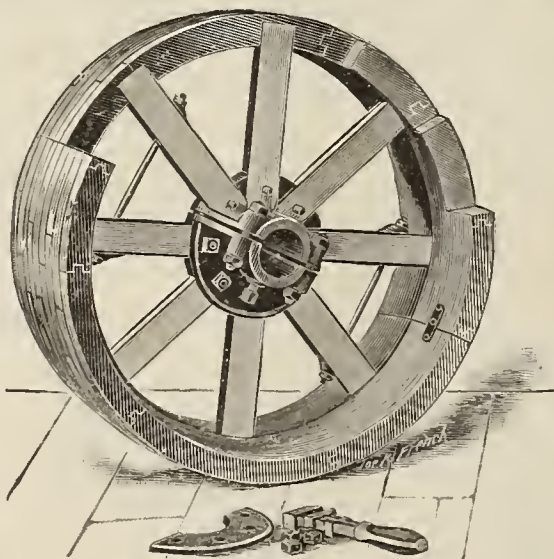


FIG. 3.

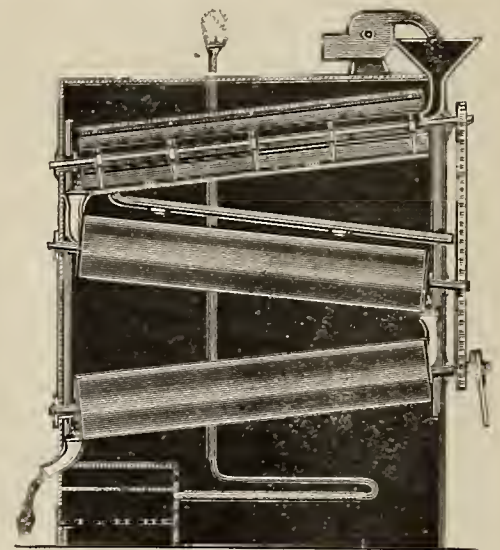
narrow arms, iron hubs and excellent belt surface. Every rim is laid up with glue and securely nailed. By the use of a patent paper lined bushing, they can be made to fit any shaft. This is the well known "Kcasey" pulley, made by the Great Western Pin Company, Auburndale, Ohio.

A new departure in fuel economy is the use of cockle seed. Chas. Maximian of Beaver, N. D., whose wheat crop was badly infested with it, built a machine for separating it, thereby improved the grade and value of his wheat and provided himself with winter fuel. It is said to make a red hot stove. Maximian is so well pleased that he talks of sowing a patch to cockle the coming season, expressly for fuel.

SANDERSON'S GRAIN DRIER.

The demand for grain driers among country grain elevator men has greatly increased during the past few years, and as the first cost and expense of operating driers are decreased the more extensively will they be used. Although the drying of corn to drive out the moisture reduces the weight the corn will be admitted to a higher grade by inspectors.

It is claimed that the drier illustrated herewith will dry grain, even when it is wet, rapidly and thoroughly. It was patented by Mr. James G. Sanderson of Scranton, Pa., and embodies a very simple and practical system. In the construction of this apparatus, an oblong, narrow and tall casing or hot air chamber is erected, having at its lower end a combustion furnace whose smoke pipe is formed in one or more return heads and projects outside of the case. Within the hot air chamber are a series of revolving sheet iron cylinders, journaled longitudinally, and each cylinder is inclined somewhat so that the series, viewed from the side, would be zigzag in their relation. The ends of the cylinders are open, and within them are



SANDERSON'S GRAIN DRIER.

fixed lesser cylinders of wire mesh secured to the radial spokes. Within these inner cylinders are longitudinal flanges with radial planes secured to the spokes and serve as tumblers. Beneath the lower end of each cylinder is a flaring chute pipe that projects its lower curved end into the higher end of the next lower cylinder. This arrangement is afforded in the whole series, the lower cylinder having a discharge chute to the outside. A feed hopper at the top introduces the grain into the upper cylinder. The series are revolved by a sprocket chain and the grain is tumbled and gravitated to the lower end, falling into the chute that discharges into the next cylinder, and so on until discharged in a dry condition outside. A suction fan, located above, has a pipe running down close to the open ends of the cylinders, and a short branch projects into each. The vapor laden air in the cylinders is drawn out by the exhaust fan, and greatly facilitates the operation. When the grain entering the upper cylinder is very wet the water drips through the meshes of the inner cylinder, runs down within the outer cylinder and escapes through orifices into a drain pipe that discharges outside. This is a system that will force the drying without the possibility of scorching or of slighting portions. Very little cost is involved in the construction of the apparatus.

MAKE MORE OF RICE.

Dealers in rice would greatly increase the consumption of this food if, through the food expositions, or in other ways, they would show the American people in how many ways rice may be prepared for use. Wheat is our great cereal, and it enters into thousands of toothsome and delicious articles, while rice is made up in only about half a dozen different ways by the English speaking peoples. It is, however, an elegant substitute for potatoes, with fowl, fish and meats, and in India is made into the most delicious cakes and articles of confectionery. It is a staple food of hundreds of millions of the human race, and a little popular education as to its capabilities and value as a food would soon double its consumption in this country.

Thirteen hundred bushels of corn will be used in decorating the Iowa building at the World's Fair.

A PNEUMATIC GRAIN ELEVATOR.

John B. Stoner of New York has invented certain new and useful improvements in pneumatic grain elevators, of which the following is a specification forming part of letters patent No. 489,340, dated Jan. 3, 1893.

The invention relates to the class of grain elevators known as pneumatic, and the objects are to provide means of conveying the grain from one point to another in a continuous flow and a device in combination therewith for automatically receiving and discharging the grain so conveyed to it.

It consists of an improved pneumatic tube having any suitable exhaust mechanism and a device for creating and

admitted with the grain, the tube will clog up, and if the grain is admitted to the elevating tube only at the point where such a current of air is admitted, the tube is still apt to clog up. Upon the supply end of the tube *A* or upon the supply end of each of its branches is arranged a small tube *G* or any suitable device through which a free from grain may be admitted into the tube *A* at its point of supply. *II'* and *II''* are openings to the tube above the main supply point *II*, through which the grain may fall into the rising current of air and grain. *Fig. 3* is an enlarged detail view showing this device. *Figs. 4* and *5* are sectional views of the same taken respectively on the lines *x-x* and *y-y* of *Fig. 3*. The tube *G* is run back along the tube *A* so that the mouth of tube *G* will be above the grain when tube *A* is inserted therein.

II', *II''*, *II'''* are openings in the tube *A* for admission of the grain. The side openings *II'* and *II''* are arranged with slides *I* for opening and shutting said openings according to the location of the grain and the amount thereof that it is desired to admit into tube *A*. At a bend in such tube as, for instance, at *E*, an adjustable valve *F* is provided. When this valve is opened a current of air will enter the tube at that point and increase the momentum of the grain after it has made the turn at *E*. This valve may be opened or not, being regulated according to the strength of the exhaust, the length of the tube between this bend and the hopper.

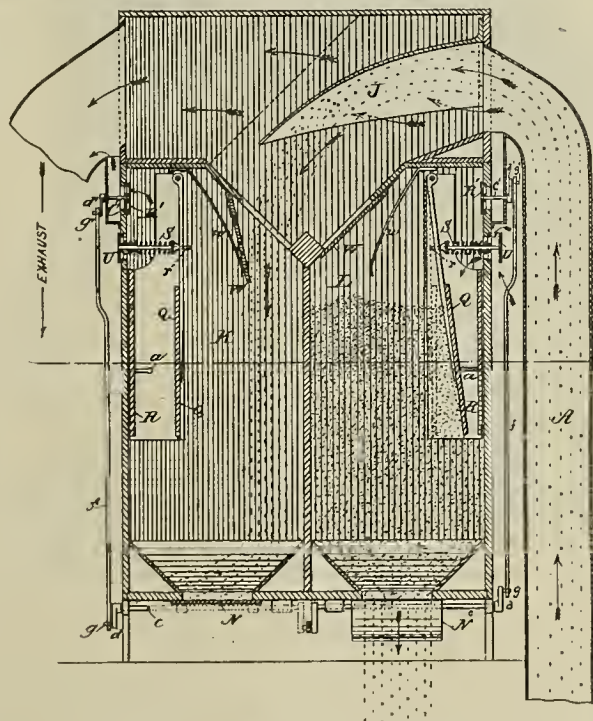
Referring now to the remaining figures, *J* is a deflector arranged within the hopper *B* to prevent the grain from following the direction of the exhaust and allow it to drop down into the hopper through the swinging door *W*, which normally rests against the brace *w*. Within the hopper are two compartments *K* and *L* for receiving the grain as it falls from the deflector *J*. The construction of these two compartments is the same and the several parts thereof are arranged to operate alternately. Within each compartment *K* and *L* is provided an independent means of operating the atmospheric valve *U* as follows: A push-board *Q* is arranged to swing in the frame *R* on a horizontal axis. The spring *S* holds said push-board normally in the position shown in compartment *K*, but when the compartment fills with grain to such an extent that the weight of the grain overcomes said spring and the tension on the valve, said push-board is forced back to the position shown in compartment *L*, the push-board *Q* being limited in its motion by the stop

maintaining a current of air at the supply end of said tube when the same is immersed in grain; and of a hopper arranged at the point of delivery of said tube and provided with compartments and valves so that it will receive and deliver the grain automatically.

Fig. 1 is a front elevation showing the several parts assembled. *Fig. 2* is a vertical sectional view, showing the hopper and a portion of tube. *Figs. 3, 4* and *5* are enlarged detail views of the device for creating and maintaining a current of air at the supply end of the tube. *Fig. 6* is a side elevation showing the device for automatically operating the valves of the hopper. *Fig. 7* is a detail view of the push-board. *Fig. 8* is a detail view of the valve *R'*. *Fig. 9* is a detail view of the valve *U*, and *Fig. 10* is a plan view of the hopper.

Referring to *Fig. 1*, *M* is the support of the hopper and the place to which the grain *N* is to be conveyed. *A* is a pneumatic tube communicating between its point of supply in the grain *N* and its exhaust mechanism *X* with the hopper *B*. The exhaust mechanism *X* may be any suitable device, such as an exhaust fan, for producing a strong current of air through the tube *A* in the direction indicated by the arrows *O*. The supply end of the tube may be constructed with one or more branches *C*, two being shown in the drawings. Each branch *C* may be rendered flexible by means of a flexible joint to facilitate the access of the tube to the grain. A rubber tube *D* fitting tightly over the adjoining ends of two parts of said branch *C* is a good form of such flexible joint. If it is necessary that said tube *A* should be bent in its course from the grain to the hopper as for instance as shown at *E*, the grain is apt to strike against the opposing wall of the tube, lose its momentum, collect at the bend, and tend to clog up the tube. To overcome this difficulty a series of inclined surfaces *e* is arranged so that the advancing grain will glance from one to the other onward in its course.

One of the principal features of the invention is the device at the supply end of the tube shown in *Figs. 1, 3, 4* and *5*. It has been found that conveying or elevating grain by means of a pneumatic tube is best performed when a current of air is admitted to the tube with the grain, thus establishing a current of air which co-operates with the atmospheric pressure in conveying the grain. If the tube is simply inserted into the grain without any means of supplying more air than is naturally

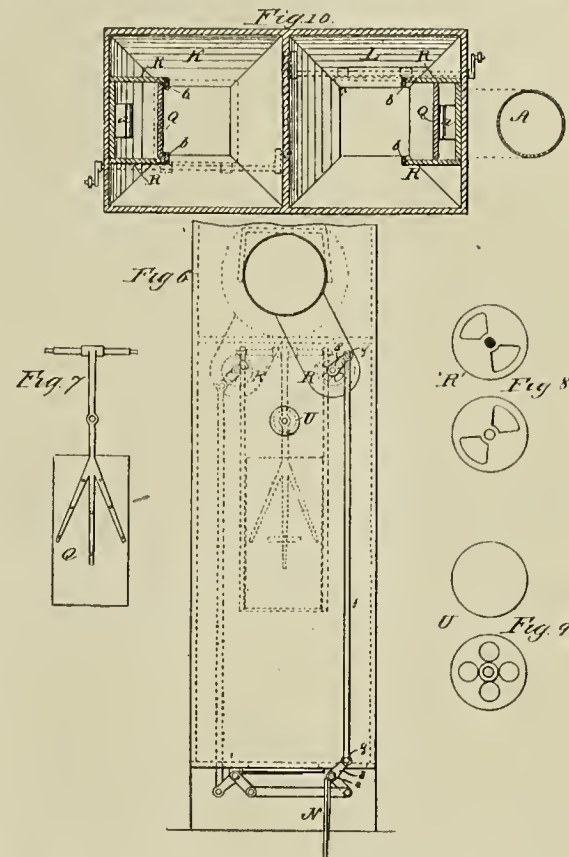


admitted with the grain, the tube will clog up, and if the grain is admitted to the elevating tube only at the point where such a current of air is admitted, the tube is still apt to clog up. Upon the supply end of the tube *A* or upon the supply end of each of its branches is arranged a small tube *G* or any suitable device through which a free from grain may be admitted into the tube *A* at its point of supply. *II'* and *II''* are openings to the tube above the main supply point *II*, through which the grain may fall into the rising current of air and grain. *Fig. 3* is an enlarged detail view showing this device. *Figs. 4* and *5* are sectional views of the same taken respectively on the lines *x-x* and *y-y* of *Fig. 3*. The tube *G* is run back along the tube *A* so that the mouth of tube *G* will be above the grain when tube *A* is inserted therein.

compartment from the exhaust. Shaft *c* is connected at its other end by means of similar crank arms, crank pins and rod, with shaft *c* of the door *N* of compartment *L*, so that the opening of the door *N* of one compartment shuts door *N* of the other compartment.

One of the principal features of the invention is the device described above, whereby the side pressure of the grain, as it fills one compartment of the hopper, operates to connect such hopper with the atmosphere.

The operation of the mechanism is as follows: The supply end of tube *A* being placed in the grain to be elevated and the exhaust mechanism being in operation, a current of air is established through tube *A*, as indicated by arrow *O*, *Figs. 1, 3* and *5*. This current of air



with the atmospheric pressure causes the grain to come into tube *A*, as indicated by arrows *P*, through the openings *II*, *II'* and *II''* and carries it up through tube *A* to the deflector *J*. Referring now to *Fig. 2*, the grain having lost its momentum, and the exhaust operating now through the greater dimensions of the hopper *B*, drops into compartment *K*, the swinging door *W* being open, the valve *R'* connecting compartment *K* with the exhaust being open, and the valve *U* connecting said compartment with the atmosphere being shut. When the grain has risen in the hopper so that its weight against push-board *Q* overcomes spring *S* and the tension on valve *U*, said push board is swung on its axis and valve *U* is opened. Through this valve *U* the air rushes in and at the same time the door *W* flies shut, and the door *N* drops open, shutting valve *R'*. In compartment *L*, door *N* is shut, thereby opening valve *R'*, valve *U* is shut, the tension on both sides of door *W* being the same, it drops open from its own weight; and the grain coming from tube *A* now drops into this compartment, and the grain in the compartment *K* is delivered; thus the compartment *K* and *L* alternately and automatically receive and deliver the grain conveyed by tube *A*.

The short crop theorists in corn and oats continue to lose money, as almost all their predecessors have done for the past twenty-five years. One of the veterans in the trade ventures the assertion that the money lost by this class of traders during the past twenty-five years would be sufficient to pay the national debt.

The Minneapolis Record has an article upon grain shortages in Minnesota. Of course, railways are responsible there as here and elsewhere for cars in improper condition. Here every inspector or weigher reports such conditions, but the main loss is from stealing. This Exchange seals cars on the track, after inspection, as the cars may stand on the track 12 to 24 hours before being unloaded. Some of our railways have commenced sealing cars as they are loaded at interior stations, and all of them will soon do so. It must be done, and then if cars come here with broken seals and shortage of wheat the road must pay. This stealing is widespread. Seals cost but \$2 per thousand at Chicago. When will shippers insist upon having as good care taken of wheat as if it were money, as it actually is?—Toledo Market Report.

EXPORTS FROM FOREIGN COUNTRIES UNDERESTIMATED.

That figures of grain exportations generally accepted by the trade are really many millions of bushels short of the actual shipments, is now coming to be generally believed by the students of breadstuffs movements throughout the world. In some countries, the United States, for example, the export figures are accurate, but in most other countries the figures are the merest guesswork. In Roumania, Bulgaria, Roumelia, Servia and Russia the official returns, now being published systematically, prove that former figures were far too small, in most cases from 40 to 50 per cent. These errors in the figures accepted by the trade are the explanation of the mysterious quantities of wheat that have always come to light after the quantities believed by the trade to exist have been used up. When the trade counts on 75,000,000 bushels in a certain region, and that region ships out from 110,000,000 to 150,000,000 bushels, the trade is mystified. The fact is, the entire business of crop reporting, from top to bottom, is wrong, inefficient, misleading and a disgrace to the wheat growing countries of the world, while the market figures on the wheat crop have never, for fifty years, come within 200,000,000 bushels of the actual crop of the world.—*Milling World, Buffalo.*

RAISING WHEAT IN INDIA.

Among the formidable rivals to the United States in the wheat industry India hold a high place; one that the introduction of modern machinery and commercial facilities will, doubtless, in the course of time, render still more dangerous. The area under cultivation in the season of 1890-1 was reported at 26,500,000 acres, and the yield 6,842,000 tons. This, too, in the face of disadvantages that, to our own notions, would render the industry almost impracticable.

The extent of this most interesting country is, in round numbers, about 1,900 by 1,500 miles, equaling the United States east of the Mississippi River. Of this, the Northwest provinces, comprising over 100,000 square miles, are the best adapted to wheat culture, but little being raised south of the 25th parallel.

The chief advantages to the wheat raisers of India are the climate and the cheap labor. The former is claimed to be the most favorable in the world for agricultural products, the seasons being so arranged that two grain crops can be grown each year, in addition to an intermediate season for fruit, vegetables and sugar cane. The first grain season begins about the middle of June, the crop then sown being harvested in September and October, and followed by another that, in turn, is ready for the sickle in March and April. From this harvest until June is the dry season, during which the farmer turns his attention mainly from the field crops to his garden produce. These changes of season are so gradual that there is no attendant loss in their transition, and they are very regular in their passage. The heat and moisture decompose all vegetable and animal refuse, giving the agriculturist the benefit of immediate returns for all fertilizers.

The average native of India is far too poor to import or buy fertilizer or to own the requisite amount of stock to keep his land in its normal condition. Nature and his own instincts of practical economy here come to his assistance and render easy what the majority of our American farmers would probably regard as an impossibility. Every form of fertilizer of the least value is utilized, regardless of the labor involved, and the natural provisions of the atmosphere and climate are drawn upon to the utmost.

There is none of the hurry and half preparation seen there that the use of machinery is so apt to introduce. Their plows are of the rudest construction, but before the field is finished, it is put in perfect condition for the seed. Eight or ten times plowing for each crop is perhaps the rule, though twenty is not uncommon, and even thirty sometimes heard of. The result is an exposure of earth many times to the action of the atmosphere (which, by the way, is always more or less laden with plant food, and especially so in hot climates), and its conversion into a seed bed that could hardly be surpassed.

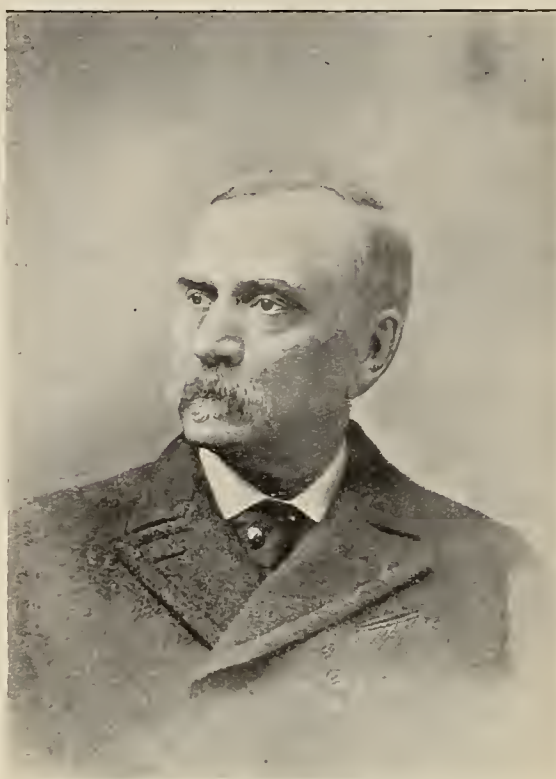
The air of India, too, is filled with myriads of insects, many visible, infinitely more invisible to the naked eye. As surely as the air itself is turned in' and mixed with the ground, time after time, is its constant load of animal life deposited. To the cheapness of labor which

makes such thoroughness possible, nature gives much unseen aid, thus making it possible to produce fair harvests on a soil of which it is said that if taken to Minnesota and subjected to the usual treatment of wheat land there, it would hardly be worth cultivating; and that, on the other hand, the Minnesota soil, if introduced into India, could all be sold as a fertilizer.

Such are the natural advantages and drawbacks of wheat culture in India; the disadvantage in the soil being apparently counterbalanced by the superior seasons and climate. Of the artificial appliances I will now speak, prefacing the description with the remark that among them all there is hardly one but would be considered a complete drawback to successful culture in this country. Yet it is possible that the very crudeness of the implements used forms, above all else, an inducement to such a method of thoroughness in culture as alone makes the effort of any avail. It is not improbable that the introduction of modern machinery into the hands of these primitive, uncultured people, in their present condition and circumstances, would thwart the very purposes it would be intended to serve.—*Northwestern Miller.*

THE NEW SECRETARY OF AGRICULTURE.

The Hon. J. Sterling Morton, who is President Cleveland's Secretary of Agriculture, was born in Adams,



HON. J. STERLING MORTON.

Jefferson Co., N. Y., April 22, 1832. His father, Julius Dewin Morton, a native of St. Albans, Vt., was a man of marked ability and sound business judgment, and at the time of his death was president of the Farmers' and Mechanics' Bank of Detroit. His mother was Ermeline Sterling, a resident of Adams, N. Y., at the time of her marriage, Sept. 30, 1830. Removing with his parents to Michigan at an early age, Mr. Morton attended school at Monroe, subsequently at the state university at Ann Arbor, and finally at Union College, N. Y., from which he received his diploma in 1854. Prior to this time he had shown strong predilections toward journalism, being a frequent contributor to the *Detroit Free Press* and to other journals. Oct. 30, 1854, he was married to Caroline Joy French of Detroit, with whom he had attended school from childhood and to whom he had been engaged from the age of sixteen. On the same day, accompanied by his wife, he started for Nebraska. Arriving at Bellevue early in November, he remained there for some months and then removed to Nebraska City, where he received the sum of \$50 a month for editing the *Nebraska City News*. This position he held for some time, resigning in 1857, but continuing editorial work at intervals until 1877.

In 1855 he was elected to the territorial legislature; was again a candidate in 1856, but was defeated by eighteen votes in consequence of his opposition to chartering "wildcat" banks. He was re-elected in 1857, and succeeded Thomas B. Cuming as secretary of the territory in the spring of 1858, and became acting governor within a few months by the resignation of Governor Richardson.

In the fall of 1860 he was nominated by the Democrats as a delegate to Congress. The result of the election showed Morton fourteen votes in the majority, and he was accordingly certified as delegate, but his seat was contested, and he was finally unseated. Returning home, Mr. Morton took no active part in politics until the spring of 1866, when he received the gubernatorial nomination, contesting with David Butler the honor of being the first governor of Nebraska.

Mr. Morton has lived for thirty-eight years upon his farm at Nebraska City, giving it his personal attention. He is a tree-enthusiast, and as the originator of Arbor Day—a day now set apart by proclamation in many states for planting trees—his reputation is more than national.

Mr. Morton has thus been for years in close personal touch with agriculture, horticulture and live stock husbandry. Ex-Governor Furnas and himself organized the first territorial fair and furnished from their farms the larger part of the live stock exhibit. Mr. Morton was for years identified with the work of the state board of agriculture and served as its president. He represented his state at the Paris Exposition and was one of Nebraska's commissioners at the Centennial. His whole life work has been a training for the duties of the office which he now assumes. The portrait of Mr. Morton, which is published herewith, was loaned us by the *Farm Implement News* of Chicago.

SEABOARD RATES FROM NEBRASKA POINTS COMPARED.

We call attention to the following table of freight rates on corn from Nebraska points to the seaboard at New Orleans, and from the same point to New York, says the *Toledo Market Report*. From five of the points named the rate is 13 cents per 100 pounds against New York. From one point 14 cents, and from another 15 cents. This is a fair exhibition of a revolution in the direction of commerce now in progress. To meet this tendency toward Southern export points, very large steamers are being built for New Orleans and Newport News. We have only room to note two points. If any grain dealer can oppose these conditions by a concession in rail rates and move the corn north, we say hands off, and let them do it. The next point is, its bearing on the absolute necessity of a ship canal to decrease the cost of exportation from lake ports.

Rate on corn per 100 pounds from various stations in Nebraska to New Orleans and New York:

Rate from	Omaha	to New Orleans	28c.	to New York	43c.
"	Lincoln	"	31c.	"	44c.
"	Hastings	"	34c.	"	47c.
"	Kearney	"	35c.	"	48c.
"	Falls City	"	28c.	"	43c.
"	David City	"	32c.	"	45c.
"	Beatrice	"	31c.	"	45c.
"	Grand Island	"	34c.	"	47c.

CORN SAID TO CAUSE TYPHUS.

Kansas City grain dealers are laughing about the charge frequently made in Mexico that American corn has caused the epidemic of typhus fever in that country.

Dr. Levi B. Salmons of Guanajuato, Mexico, has translated the following from a Mexican newspaper:

The present epidemic has been marching down from north to south through this republic since June, 1892; like its two predecessors, it has also been preceded by a two years' drouth and the famine which followed. In order to relieve the poor to a certain extent from their sufferings from the drouth, great quantities of American corn were admitted from Texas free of duties. The pestilence has had progressive development in the places where this corn has been introduced, making the greatest havoc where it has been most used, such as Zacatecas and Guanajuato. The Texas corn, as I have been informed, has been kept a long time in immense depositories, being preserved by means of sulphate of copper and lime so as to sell it at such time as prices might be up.

A Kansas man, B. D. Hanna of Cowley, has a plan for preserving wheat in the bin free from must or weevil. In 1891 he had 1,000 bushels of wheat and placed it in his granary. He first placed a stalk of green hemp in the bottom of the granary, and for every load of forty bushels he placed another stalk or a part of a stalk of green hemp, covering the top, when the granary was full, with ten or a dozen stalks. When he removed the wheat one year later it was bright, plump and without a sign of must, mold or weevil.—*Live Stock Indicator.*

OATS IN ILLINOIS.

The following is a summary of some experiments with oats, made at the Agricultural Experiment Station of the University of Illinois, Champaign, on fertile, dark colored prairie soil, for the season of 1892.

The season was unfavorable for oats, in marked contrast with that of 1891. The yield per acre and the average weight per bushel were light. The rainfall during most of the period of growth was unusually heavy—19.67 inches for April, May and June. In 1891 the rainfall for corresponding months was 6.51 inches. The average temperature for these three months was rather low. For July the rainfall was 2.5 inches and the average temperature 73.3° F.

In tests of 59 varieties, grown on 70 plats, the average yield was 39.8 bushels an acre, with an average weight of 30.25 pounds a bushel. Only three varieties gave yields over 50 bushels; 12 over 45; while 44 gave yields of less than 35 bushels an acre. These results are in strong contrast with those in 1891, when 44 varieties gave an average yield of 66.6 bushels, with but one falling below 50 bushels an acre, and with an average of 33.5 pounds a bushel. Comparison of varieties from results in 1892 is made the more difficult because of slight injury to several plats, and of serious injury to two plats, by army worms, and by the fact that it was impossible to secure all the grain from some plats because of the falling of the straw. Duplicate plats of each of six varieties were sown. In two cases the differences in yields of these were surprisingly great, illustrating the difficulty in deciding on the value of varieties from the yield in a single year. Pringle's progress takes the first rank for average yield for four years past, but no variety has had anything like the same rank in all the four years.

The per cent. of hulled kernel to berry of all varieties was 69.57; the highest 77.43; the lowest 62.8. Slightly better results were obtained when the oats were harvested while the straw was still green and the kernels mostly in the dough stage than when the straw was mostly yellow and the kernels hard. When the oats were allowed to mature fully the results were distinctly less satisfactory. When the sheaves were bound and shocked at once, the yield was somewhat better than when the cut straw was allowed to dry thoroughly before the sheaves were bound.

The results of all the experiments with oats tried at this station for the last five years suggest that on the fertile soil of Central Eastern Illinois, with simple methods, we may expect in a series of years an average yield an acre of a little over 50 bushels of grain and about one and one-half tons of straw; the oats weighing rather less than more than the standard weight of 32 pounds a bushel.

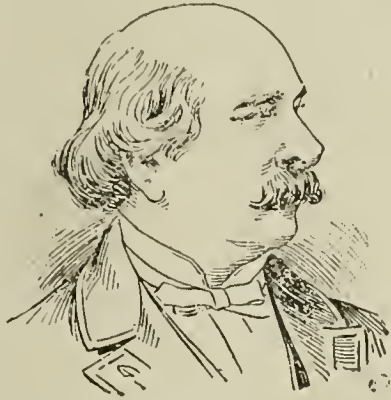
DEATH OF RUFUS HATCH.

Rufus Hatch, the well-known speculator, died at his home in West Chester, N. Y., February 23. He had been ill for some time. Mr. Hatch, of whom we give a portrait herewith, was born in 1832 in Wells, York Co., Me. At the age of 13 he went into a country store at Kennebunk Port, Me., and in 1850 he went to Rockford, Ill. While at that place he began to make dickers with the farmers to take on commission all their products. Business grew, but he left to go on a surveying trip with a party who were laying out the Chicago & Northwestern Railroad. Then he went to Chicago to go into the produce and commission business, and soon became possessed of considerable money. He founded the Board of Trade in Chicago and became a director in the Chicago & Northwestern Railroad. In 1857 he failed for \$160,000, but was soon on his feet again better off than ever. In 1862 he went to New York and at once became a member of the stock exchange, produce exchange, and the gold board. He went heavily into Pacific Mail and became president and managing director of the company in 1871. Under his direction the steamships City of Pekin and City of Tokio were built.

He again entered the grain commission business on a large scale, and in 1878 failed for \$600,000, but in three years he had paid it up with interest and had a fortune besides. Senator Vest of Missouri attacked the Yellowstone scheme of Mr. Hatch in the Senate, and as a result it went into the hands of a receiver. Again, Mr. Hatch failed, and since then he has cut no figure in financial affairs. He was in but very moderate circumstances. Mr. Hatch was married twice, his first wife dying in 1873. In 1876 he married Mary Gray, daughter of Captain Gray, Commodore of the Pacific Mail fleet. By his

first wife Mr. Hatch had three children, and by his second four. All seven are living. Mr. Hatch was one of the most remarkable characters in Wall street. He possessed extraordinary recuperative powers, as his ability to recoup after three failures proved.

He had two hobbies, music and books. Away back in his Chicago days he played the organ in the Rockford Church, and in his palmy days supplanted the wheezy instrument by a \$15,000 grand. In New York City he was head of the music committee of Christ Church. He



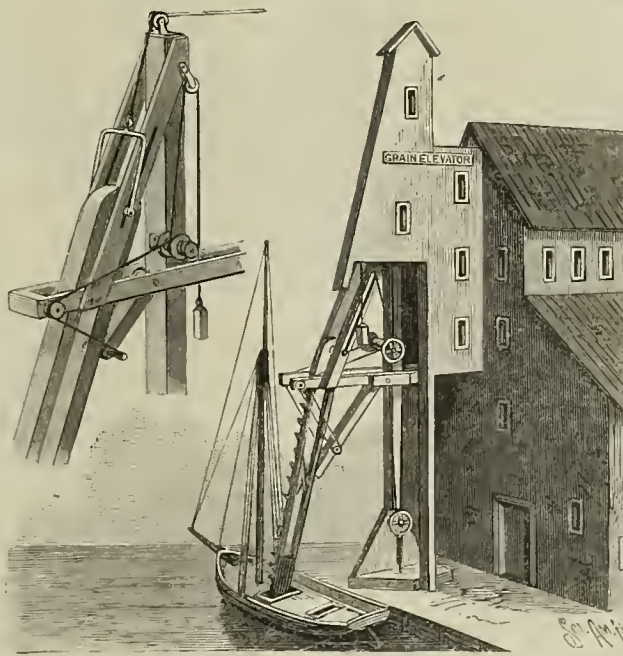
RUFUS HATCH.

paid a good part of the bill and enjoyed the notoriety of the effort. Lately he found his greatest consolation in the very rich musical alcove of his library.

DEVICE FOR SHIFTING MARINE LEG.

Probably more marine elevator legs are used in Buffalo, N. Y., than any other city on the globe, so it is natural that improvements in legs used to elevate grain from vessels should be patented by citizens of that place. The device for shifting a marine leg which is illustrated herewith was invented by James Flemming.

The elevator leg slides in a frame extending horizontally from a post, and on the upper end of the leg are trunnions which extend through slots in braces connecting the front end of the frame with the upper end of the post. The outer ends of the trunnions are engaged by a bail connected with a rope extending over a pulley, the



DEVICE FOR SHIFTING MARINE LEG.

rope being connected with a suitable device for pulling the leg up or letting it down. The back of the leg is supported by a friction roller journaled in the free end of a pusher arm pivoted on the frame, this arm being also connected with a rope extending forwardly and upwardly over a pulley in the outer end of the frame, thence to and around a drum turning on a stud on the vertical post, the rope then passing upward over a sheave, and supporting at its lower end a weight designed to counterbalance the weight of the elevator leg. At one end of the drum is a pulley over which passes an endless chain or rope, which passes also over a pulley provided with a hand wheel near the ground, and by manipulating this chain or rope the drum is turned to wind up or unwind the rope connected with the forward end of the pusher arm, giving the latter a forward or backward swinging motion, whereby the lower end of the leg can always be held in contact with the grain.

Two men can easily and quickly put the leg into the largest vessel and shift it as they desire. One is now in

use in the "Exchange Elevator" at Buffalo, and is said to prove satisfactory in every respect. Any elevator can be equipped with the device. For additional information address Jas. Flemming, 290 Perry street, Buffalo, N. Y.

GOOD AND POOR HAY.

The bright and cheerful item that stands out to attract and encourage the hay trader to give his wheel of fortune another turn, by putting another thousand tons upon the market, is the fancy and No. 1 hay with the prices at the top of the list which they will command. He does this repeatedly, and if it was all as expected he would have little fear in regard to his calculations and the good result of his venture. But as the wheel revolves and the hay moves forward, he finds dark spots looming up that do not correspond with the number or quality he has figured upon, and as a rule the further he goes along with this purchase of supposed number one, the more dark spots come to the surface, until at the end he finds instead of having had a good bargain that bid fair to show a revenue, he discovers that only about 10 per cent. of the whole amount has been entitled to the credit of bright prospects and profit, with the result that the bright spot and profit have entirely faded from sight in the balance which has been rated at the various grades down to poor and rejected. This is good and poor hay at a good price. It is a well-known fact good goods of any kind or nature generally show a profit, and as well known that disappointment and loss follow the poor, which is especially true of hay where the range in price between the two extremes is often from \$5 to \$8 per ton, which with about one-tenth of the whole ranking at the top it is next to impossible for the dealer in the country to make his purchases at an average price that will even up on the grades. There should be as large a margin in the lower grades as there is in the higher; it costs the same to handle them in the country, and the railroad companies make no difference in their favor in the rates of transportation.

In fact, there should be a greater margin, as there is usually a delay in their movement and sale in the markets, which means an additional cost. Now, if these goods were all bought on a basis of their value, as most others are, the bright spot in the hay trade would not be confined to the so-called fancy hay and the price at the top of the list, but each one of the grades that would take you down to the figures at the bottom would have a cheerful appearance. There is no law that this state or nation can enact that will bring this about. The law of custom that has established the rules in the markets must establish it elsewhere. There are a number now in the trade who are striving to buy their goods on this basis, but are hampered in their progress by others who are either too timid or philanthropic in their dispositions to exact the delivery of what they pay for, which is a good neighborly feeling and policy, but poor practice, as neither of these qualities can be recognized in the custom established in the market where the goods are sold, and the sooner the wheels are set in motion on a large scale for the establishing of this custom, the sooner the time of success in the hay trade in the country will arrive.—*Hay Trade Journal*.

JERRY SIMPSON'S HEAD IS LEVEL.

Hon. Jerome Simpson of Kansas voted against a suspension of the rules in the House of Representatives on Wednesday, for the purpose of considering the Anti-Option bill. In an interview he says: "I voted against the bill, because I thought it was a bad bill, because it would not do what was claimed for it, because it sought to interfere by legislation with commerce and trade. It was, they said, intended to aid the farmers. It would have done nothing of the kind. I don't believe speculation in wheat affects the price much, any more than speculation in horses. Had this bill passed it would have put the farmers in the hands of a combination, which would have thrown their grain back on their hands until the combination saw fit to buy it at the combination's own prices. It would have hurt the farmers tremendously. Hatch claimed all the farmers were for it. Well, here is one who was not."

"We bought a million of wheat to-day," said Charles Counselman of Chicago March 3, "all of it for outsiders—for people who began business because the anti-option bill had been disposed of. Unquestionably the experience of other commission men has been the same."

COMMUNICATED

[We invite correspondence from every one in any way interested in the grain trade, on all topics connected therewith. We wish to see a general exchange of opinion on all subjects which pertain to the interest of the trade at large, or any branch of it.]

TO RID ELEVATOR OF WEEVIL.

Editor American Elevator and Grain Trade:—In a recent number of your journal you gave instructions how to rid an elevator of weevil. This information has saved me more than \$100. I followed your instructions and my house is now free from all insects as well as mold.

Yours, E. W. K.

BY FAR THE BEST.

Editor American Elevator and Grain Trade:—Although we are not "rushing things" in our line of business your publication is very useful to us, and we do not propose to dispense with it. We consider the AMERICAN ELEVATOR AND GRAIN TRADE by far the best of which we have any knowledge, being not only instructive, but entertaining and newsy, just such a visitor as always finds a welcome. Herewith find our check for renewal of our subscription.

Yours truly, T. J. HOLMES & SON.
Brooklyn, Ia.

A CORRECTION.

Editor American Elevator and Grain Trade:—We notice in your AMERICAN ELEVATOR AND GRAIN TRADE that you have noted the personnel of the board of directors recently elected by the Baltimore Corn and Flour Exchange. Our Mr. Botts is the party referred to as James Botts. It should have been Thomas H. Botts instead of James Botts. In a journal that has such a large circulation as yours we would like to have it appear in correct form.

Yours truly, JOHN C. LEGG & CO.
Baltimore, Md.

LEGISLATION IN KANSAS.

Editor American Elevator and Grain Trade:—I learn that the bill introduced by the Kansas Grain Dealers' Association providing for clean bills of lading and track scales at points where 50 cars and over are shipped annually has been passed by the Senate and also by the Populist House, but as the acts of the Populist House have been declared unconstitutional by the Supreme Court we do not yet know the outcome.

If the Republican House passes the bill we are safe; if not, it is doubtful if our labor will amount to anything. Thanking you for taking interest in this matter, I remain,

Respectfully yours, H. WORK,
Ellsworth, Kan. Secretary.

HARD SPRING WHEAT WANTED.

Editor American Elevator and Grain Trade:—I took possession of the "Otterville Roller Mills" on February 16, having bought it from the estate of E. Ross, deceased. I came here from Union, Cass Co., Neb., having sold the "Factoryville Mills" there in November last.

I find there is but little wheat raised here now, so we have to buy our wheat and ship it in; and I would like correspondence from grain men in South Dakota and Southwestern Minnesota who can furnish No. 1 hard spring wheat from country elevators.

We have a good demand for our products; feed, especially, finds a ready sale at good prices.

Yours very truly, T. M. WARNE,
Otterville, Buchanan Co., Ia.

THE ERIE CANAL.

Editor American Elevator and Grain Trade:—To genuine friends of the Erie Canal it is appalling to think of how the canal is misused by the railroad grain elevator combines, crippled by water thieves, slighted by the members of the legislature and all sanctioned by Governor Flower.

While the Canadian Government is to expend on its canals in 1893 the sum of \$4,300,000, the New York Legislature will provide only \$258,000 for canal improvements, and out of this amount only one lock is to be

lengthened. At present it appears that railroad corporations are running the legislative mill at Albany.

Yours respectfully, CART. M. DEPUY.
New York, N. Y.

ORGANIZED A NEW COMPANY.

Editor American Elevator and Grain Trade:—Having concluded for satisfactory reasons to incorporate our business we have organized the William Rahr Sons' Company under the laws of Wisconsin and transferred to it the assets and good will of William Rahr's Sons. William Rahr is president, Maximilian Rahr, vice-president, and Reinhardt Rahr, secretary and treasurer of the new company. The corporation will be the successor in business of the copartnership, and will continue the business heretofore existing under the firm name of William Rahr's Sons.

THE WILLIAM RAHR SONS' COMPANY.
Manitowoc, Wis.

TRACK SCALES AND CLEAN BILLS OF LADING.

Editor American Elevator and Grain Trade:—In reference to the editorial comment on the bill that the Kansas grain men are trying to have passed by their state legislature asking for track scales and clean bills of lading, I would like to ask why track scales are not as correct and reliable as any scales that are exposed to the weather.

The majority of grain men have their scales outside, exposed to all the snow, ice, rain and wind that comes their way. Yet the grain buyer buys by the weight of these scales and pays his good hard money for all grain weighed over them. If the railroad companies would take as good care of their track scales as the grain man does of his wagon scales they would be just as reliable.

I most certainly believe that a shipper is entitled to a clean bill of lading and that the railroad company should make good any shortage occurring while in transit. I think it would eradicate several wrongs, not the least of which is furnishing ballast empties to load. I have had cars sent in for me to load with grain that were not fit to load with cattle. You kick to the railroad agent and he very politely (or otherwise) informs you that that is all he has, and you can load them or do without. It is not very pleasant to put in one or two hours patching up an old box car. If railroad companies were obliged to receipt in full for the grain loaded into cars and had to make good any shortage while in transit they would see to it that better cars were furnished for loading, that no grain was stolen and that terminal weights were correct. Their responsibility would commence when the grain was loaded and would not cease until delivered and weighed at destination. As the railroad companies have quite a faculty for protecting their own interests I am inclined to think that this matter of shortage on grain while in transit would soon be a matter of history.

I think that the railroad companies do not want track scales used and for that reason allow them to get out of order to discourage their use. It is no big job for a railroad agent to balance the track scales every morning to see that they work freely. It does not take an expert by any means. I do not believe in radical legislation, but do think that matters should be adjusted about right for all concerned; and the Kansas grain men are making a move in the right direction and should be followed by buyers in other states.

Yours, SUBSCRIBER.

A NEW GRAIN EXPORTING CITY.

Editor American Elevator and Grain Trade:—It may interest many of your readers to hear something about a new grain exporting city which gives promise of becoming a formidable rival to some of her pretentious sisters.

Galveston, the "Island City," is beautiful and cleanly in appearance, desirable and accessible as regards location and convenience for the direct loading of ocean tonnage, geographically and by rail closely connected with the wheat and corn fields which yield the greater part of our export products, and free from "blizzards" and weather conditions that often put an embargo upon traffic in our more northern latitudes. Consequently she has attracted the favorable notice of Western farmers and grain men who apprehend and appreciate the value of these happy conditions and hope to derive general and personal advantages therefrom.

Galveston herself has not failed to take note of the situation, and with good business sagacity her capital has been liberally invested in advance of any probability of immediate profit. Wharves of piling, plank and shell have been constructed along the bay so as to afford room for scores of steamships and other craft, where cargoes

may be easily discharged or loaded. Piers and slips are arranged so as to secure the best facilities for moving everything with expedition and economy. Upon one pier the Galveston Wharf Company has erected a million-bushel grain elevator, which has been in operation since September, 1892; and the efforts which have been made by grain men to get their wheat into this new house have been so zealous and persistent that the Santa Fe Railway found it impossible to move all that was offered, and at the close of January, 1893, having about 1,000 cars en route, gave notice that the accumulated business must be disposed of before further consignments would be accepted. The volume of business in this commodity was a revelation to the managers of the road, far in excess of their most liberal calculations. It is indeed marvelous that the tide of export grain should be diverted in this direction with such precipitation in so great a quantity. It indicates that those interested are quick to discern and prompt to appropriate the superior advantages which are here offered.

In the winter season Chicago can do little because of cold weather, and St. Louis is subject to the drawback of ice in the Mississippi River. New Orleans can dispose of all she receives, but Galveston has the advantage in a shorter rail haul, and this feature will improve as the acreage in grain increases, for the uncultivated lands are nearer to us and further from New Orleans.

The initial equipment of Galveston for handling grain is quite sufficient for this year's business. The new elevator, with fourteen cars' capacity at each sitting, can receive, if required, 280 cars per day. Fourteen 60,000-pound scales, each provided with a garner of the same capacity, afford facilities for prompt weighing, and De Muth's Cipher Check Beam attached to each scale tends to secure accuracy. Several steamships have been loaded. The "Mutual" took 101,000 bushels of wheat and other vessels follow. Thus the grain trade of Galveston is established. It will be permanent, and it will rapidly increase in volume. In a very few weeks the bar which opposes the passage of vessels drawing over fifteen feet will be removed. The south jetty is nearly finished and soon an immense iron harrow will begin tearing up the impacted sediment so that the increased velocity of the current, caused by narrowing the outlet, may take it in suspension and carry it into deep water outside. Some scouring has already taken place, but the hardness of the bar makes the progress slow, and the purpose of the harrow is to expedite the work. Such an implement was used successfully at Velasco.

Galveston will augment her wholesale business, and vessels will have cargoes in and out, thus abolishing the handling of ballasts and profitless runs unladen. Taken altogether, the existing conditions render the possibilities of this port as a grain exporting center so apparent to intelligent investigators that while local interests and home capital are venturing boldly many prominent exporters of other cities are adding to their established business by other routes large shipments for export through Galveston.

E. P. BURLINGAME.
Galveston, Tex.

ADVANTAGES OF A TERMINAL ELEVATOR.

The Winnipeg Board of Trade and the Grain Exchange have petitioned the Canadian Pacific Railway Company to erect and operate a terminal elevator at Winnipeg as it now does at Fort William, Ont. The advantages claimed by the promoters for the establishment of a large terminal elevator are as follows:

- 1st. It would enable shippers at interior points to have their grain cleared before it is presented for inspection.
- 2d. It would enable smutty grain to be scoured and afterward sold on its merits.
- 3d. It would enable exporters to accumulate export lots of different grades.
- 4th. It would afford facilities for the establishment of a better "sample grain market" for Manitoba wheat.
- 5th. It would enable country shippers to secure warehouse receipts for any quantity of grain forwarded, having attached certificates of grades and weights issued by Dominion Government officials.
- 6th. It would afford storage for grain in case of an excessive demand for cars at interior elevators, or in case of a blockade.
- 7th. It would enable shippers to afford official proof of weights to Eastern consignees and protect them both from claims re shortages.

POINTS ABOUT SHORTAGES.

BY CHICAGO WEIGHMAN.

One productive source of annoyance and loss in the grain business is the matter of shortages or variations in weights between the shipping and receiving elevators. The subject is as old as the grain business, and has been discussed so fully in these columns that it is beginning to appear threadbare. Notwithstanding, I am inclined to add a few ideas gathered during my experience as a weighman among the grain elevators of Chicago. Absolute harmony in weights between any two elevators is next to impossible; but there is no good reason why, with proper facilities, the weights on an average should not be satisfactory. I believe the principal cause of shortage claims lies with the very men who think they are wronged.

I find it to be a fact that almost all of the shortage claims that are received on cars I have weighed come from points where poor weighing facilities are in use and where rather haphazard methods are employed. I reach this conclusion from the letters accompanying the claims and from a discussion of the question with numerous grain dealers and elevator men. I recall an instance in point where a shipper loaded two cars of oats—the contents of a bin in his elevator. He wrote his commission man to look after the weight of one of these cars—the one I weighed—claiming it must be short, as the car was loaded away above the grain line. He would know how it stood when he heard from the other car as he knew the combined weights of the two cars, so he said. The letter closed with: "I don't want to raise an alarm until I look into the bin and see if it was run empty."

Other claims have statements of the wagon loads, some forty or more, that were loaded into the car and figured out a shortage. As near as I can learn a good deal of the grain received at country elevators is weighed on wagon scales in the various amounts as delivered by farmers and placed in a bin, of which an account is kept until enough has accumulated for a carload. Then a spout is attached to the bin and the contents transferred to the car. The only weight is obtained by adding up the different lots of grain that were put together in the bin. Is it strange that a difference should appear between the weights obtained in the above manner and the weights obtained from first-class hopper scales where the whole carload is weighed at once?

In an article by "Observer" in a late number of the AMERICAN ELEVATOR AND GRAIN TRADE I notice he would account for some of the shortages by charging the weighman at receiving elevators with dishonesty. The argument used is that to protect himself against his mistakes in weighing the weighman takes extra weight besides the regular toll to make sure of enough grain to fill receipts. The argument is a poor one because there is never any trouble about being able to fill receipts. Besides, if mistakes do occur they are as likely to be in favor of the elevator as against it and therefore may not affect the balance. The only reason for stealing on the part of a weighman is what pay he gets out of it. The whole argument used here by "Observer" should be coupled with a former story of how an elevator manager used to puzzle over his immense overruns from year to year, presumably because he did not know what to do with it all.

The toll system is responsible for just so much of the shortage on a car as the toll taken amounts to, that is plain; but it is equally plain that tolling in any amount is wrong and should not be tolerated.

The amount of toll taken on each car is less to-day than ever before, owing, I believe, to the complaints from shippers. A car partly loaded might be let off with 30 to 40 pounds, but the amount of toll taken from a full carload cannot be written with less than three figures when received at any elevator I know of.

Regarding the mistakes of a weighman I think it depends almost entirely on how he attends to business. If he is of a careless sort and has his mind much occupied with matters foreign to his work there is no telling how many mistakes he would make. Such a man could not retain a position any length of time as a weighman in an elevator. On the other hand, if a weighman cares anything about his position or reputation he will apply himself to his duty and study out some system suited to his work, that when followed out will compel attention to business. I have some mistakes to my credit the same as others, but how many or of what amounts I can not say. There is this I do know, that is, how often I have mixed

different grades or kinds of grain in distributing same to the bins. The work is similar and is done at the same time as the weighing, and I believe my mistakes in weights are no more if as many as those of mixing grades, because I have a check on my weights that I do not have on the spouts. The number of mistakes in mixing grades to my credit is but one car in 3,000.

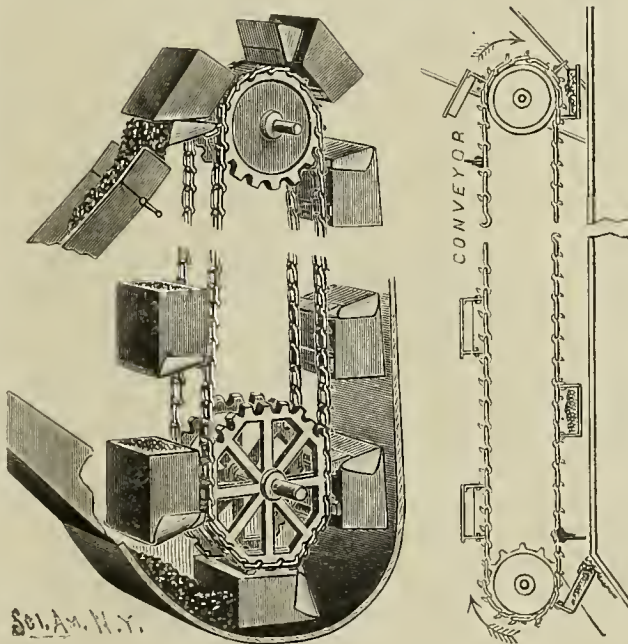
The best move I can think of to bring satisfaction to all concerned is a change that would place the weighing of the grain in the hands of state officers just as the grading of the grain is placed in the hands of the state grain inspection department. A state weighman would stand between both shipper and receiver and render justice to both.

The complaints sent in by shippers of shortages have done a great deal of good. They should first be sure they are correct themselves, and if their ears fall short kick with a big K.

ELEVATOR AND CONVEYOR.

A patent on an elevator and conveyor has been granted to G. H. Terch of Pottsville, Pa., by the United States Patent Office. The essential point in the patent is the bucket, which is made with a body and end gate, so constructed and hinged as to be automatically opened and closed at the proper moment during ascent and descent.

In the cut given herewith the figure to the left represents the elevator. As shown the buckets are carried on a double endless chain running over two double sprocket wheels. The upper wheel is made round so the body and gate or bottom of the bucket, being fastened to separate



links of the chain, will be parted upon reaching it; and the lower wheel is made octagonal so the chain, in sections, will be stretched straight and thus keep the gate of each bucket closed while passing around and scooping up the grain. In connection with the elevator is the casing and the supply and discharge spouts. The upper end of the discharge spout is provided with an elongation which swings on a hinge and drops down under each bucket when it has passed to catch the falling material and guide it into the discharge spout. The elevator can be made of any desired height and by running the chain over a round sprocket wheel the buckets can be discharged at any desired height above the boot, at the second, third, fourth, etc., floors of a warehouse or elevator. When discharged the material is not violently thrown out of the bucket, but is gently dropped out at the bottom, thus avoiding injury to the material.

The figure at the right shows the principle of the elevator as applied to a conveyor. Instead of being placed one above the other, as here shown, the sprocket wheels are placed on a level or nearly so. The bucket is oblong in shape and provided with an end gate. Having received a load underneath one of the sprocket wheels the bucket passes along, suspended, to the other sprocket where it is discharged, the body of the bucket dropping down in advance of the end gate as it rounds the wheel. The empty bucket then passes over and onward in the direction of the arrow to receive another load. The conveyor may be made of any desired length within the strength of the chain. Either of the two sprocket wheels may be employed to receive power from a shaft and move the chain.

TRICKS OF GRAIN SHIPPERS.

"Grain inspectors learn a good many things in the course of a few years' service," said Ex Chief Inspector Price recently, "and one thing they learn is that the agriculturist is not altogether without guile. Many of the tricks resorted to by farmers to gain an advantage over the men who purchase their grain are amusing, and an inspector uncovers a good many such tricks."

"I remember one case in which a lot of grain was shipped by a farmer in bags. The buyer was somewhat suspicious, and had each bag carefully inspected. A trier was thrust down the center of each bag, and the grain sampled beautifully. It was all of high grade and Mr. Buyer began to think he had done the poor farmer an injustice by suspecting his integrity. When the grain was taken into store and turned out in a bin, however, it was found to be full of weevil and dirty, fifth rate stuff. Next time a purchase was made from the same farmer a closer examination was made and the wily agriculturist's method of deception was discovered. He would stuff a section of stovepipe into each bag before filling it and pour dirty grain all round it. Then he would fill the pipe in the center of the bag with good, clean stuff and carefully withdraw the pipe. It was a pretty slick trick, but it did not pay in the long run."

"We call it 'plugging' when a grain is improperly loaded for the purpose of deception, and about the most peculiar case of 'plugging' I have heard of was discovered here some time since. One of our inspectors, on thrusting his long steel 'trier' down into a carload of oats, struck something hard, and on withdrawing it found the lower end filled with the yolks of eggs. The car was going through to Boston and the shipper had filled the bottom with barrels of eggs, covering them over completely with oats to the depth of perhaps a foot. He had reckoned without the 'trier,' however, and the shipment proved an expensive one to him. He had calculated on saving a good deal, as the freight charges on oats are only about one-fourth of the charges for perishable goods like eggs, but the railroad people, on discovering the trick, took out the eggs and stored them, sending the 300 or 400 bushels of oats through as a full carload and notifying him that the eggs were held subject to his order."

"A trick sometimes resorted to by dishonest shippers is to pack inferior grain around the sides of a car by means of boards, which are removed as the car is gradually filled, but such schemes are seldom successful, for the inspector's 'trier' samples the contents of every part of the car, and discloses the presence of inferior stuff with almost unerring certainty. All attempts to practice deception are promptly reported, and the persons resorting to such tricks, who are, of course, comparatively few and far between, find that they prove to be boomerangs. In no case is the grade of any quantity of grain made above that of the poorest quality found in the lot when it has evidently been 'plugged' or otherwise loaded. I might mention other tricks sometimes practiced by shippers, but they seldom accomplish their purpose, and we laugh at them more than we fear them."

No wheat was exported to Canada last January, against 67 bushels in January, 1892; but during the seven months ending with January 2,692,669 bushels was exported to that country, against 3,273,857 bushels during the corresponding period of 1891-92.

The Harter bill, as passed by the Senate, makes it unlawful to insert in export bills of lading of any vessel any clause relieving it from liability for damages arising from negligence or failure in proper loading or delivery of merchandise committed to its charge, or on account of not being seaworthy. Any refusal to issue such bill of lading is punishable by a fine of not more than \$2,000.

Our wheat exports last January included 6,622,192 bushels to the United Kingdom, 40,353 to Germany, 606,725 to France, and 1,486,886 to other countries in Europe; against 7,377,346 bushels to the United Kingdom, 364,131 to Germany, 2,235,895 to France, and 3,188,998 to other countries in Europe for the preceding January. For the seven months our exports of wheat included 50,952,759 bushels to the United Kingdom, 1,922,177 to Germany, 3,178,018 to France, and 16,039,486 to other countries in Europe; against 46,571,736 bushels to the United Kingdom, 4,151,059 to Germany, 33,457,396 to France, and 23,418,943 to other countries in Europe, for the corresponding period ending with January, 1892.

CROP : CONDITIONS.

KENTUCKY, MAYSVILLE, MASON Co., March 11.—The growing wheat is in fair condition. The acreage and the stocks on hand are up to the average. JNO. M. THOMAS.

NORTH DAKOTA.—The ground is still covered with snow in North Dakota. There is plenty of moisture in the ground and with warm weather indications for seeding are favorable.

NORTH DAKOTA, CARRINGTON.—There will be a larger acreage put in grain in this county this spring than ever before and farmers have their land in better shape for a crop than for several years.

OHIO, EXCELLO, BUTLER Co., March 13.—Wheat is in good condition. The acreage is an average. One-third of the wheat and corn and one-fourth of the oats are on hand yet. HARTLEY & GARRISON.

MISSOURI, GREEN RIDGE, PETTIS Co., March 10.—The condition of growing wheat in this vicinity is poor. The acreage of wheat, corn and oats is an average, and the stocks on hand are small. HOLLENBECK & FARR.

IOWA.—No indications yet of seeding oats in Iowa. There is little frost in the ground. Dealers are shipping out corn as fast as received, and cribs at railroad stations are not well filled. Country roads are in bad condition.

TEXAS.—In Texas the wheat crop never was more promising, no damage of any kind. There is a large acreage of oats and the crop looks well. Taken as a whole, the conditions are much better than they were last season.

MISSOURI.—The condition of late sown wheat in Missouri is much poorer than the early sown. No talk of plowing up wheat. There is plenty of moisture in the ground to give the crop a good start if we could only have warm, growing weather.

KANSAS.—There is no material change in the prospects of the wheat crop. Late sown wheat does not look as well as the early sown. Farmers had begun sowing oats, but were interrupted by the cold spell. In Southern Kansas wheat is showing a little growth, no increase of damage reports.

SOUTH DAKOTA.—The ground is bare, with the exception of a little ice and snow in spots. The frost has not begun to come out of the ground as yet. There is enough moisture to give the crop a good start, and if farmers could commence seeding by the middle of this month would consider it an early spring.

WISCONSIN.—The ground is covered with plenty of snow and ice and it will take some days of sunshine to show any prospects of spring. There is no particular change to note in the condition of the winter wheat crop. It shows no signs yet of life, as it is covered by snow. There are no deliveries of grain on account of bad roads.

KENTUCKY AND TENNESSEE.—In his report of March 10, Prime says: "Wheat has grown but little as yet. Prospects are not as good as they were a year ago at this time, but there is plenty of moisture in the ground, and with favorable weather farmers are looking for a good crop. There is no talk of plowing up the wheat. The last ten days have been severe on the crop."

MINNESOTA.—In Northern Minnesota the ground is still covered with snow, and few indications of spring. There is plenty of moisture in the ground to give the crop a good start when sown. In Southern Minnesota there is more snow on the ground than for years. There seems to be nothing to indicate an early spring. There is plenty of moisture in the ground for seeding.

MICHIGAN.—Snow has not yet left the wheat in Michigan. Freezing and thawing weather does not seem to have hurt the wheat so much since farmers have been using drills to drill the wheat in as it did when sown broadcast. The crop has been well protected all winter and as yet shows no signs of growth. There will be plenty moisture in the ground when the snow melts. No reports of winter killing.

ILLINOIS.—In Central Illinois wheat shows little signs of growth. The last ten days have been severe on the crop, and a great many farmers are talking of plowing up the wheat. Ground seems full of moisture, but have not had warm enough weather yet to show any improvement in the crop or make the ground in condition to plow. In Southern Illinois wheat is showing a little green, scarcely perceptible. Wheat is not in as good condition as last year and the late sown has suffered

much more than the early sown. No oats sown and no plowing done. The milling trade is dull.

KANSAS, CONCORDIA, CLOUD Co., March 13.—The growing wheat is in poor condition; and the acreage is only an average one. Our stocks of wheat, corn, oats and rye are small.

WHEAT MARKET IN MICHIGAN.—The total number of bushels of wheat reported marketed by Michigan farmers in February was 1,134,179 bushels. In the seven months from August to February the total was 10,530,532 bushels.

EASTERN NEBRASKA.—In Eastern Nebraska it will take a week of good weather to clean up the snow and ice and take the frost out of the ground and make it in condition for spring seeding. The reserves of corn on hand are about the same as last year. Farmers are in better shape to hold and hence do not look for any free movement at present. Dealers are shipping the shelled corn about as fast as received. There is still some complaint of scarcity of cars.

INDIANA.—Prime reports that in Northern Indiana the frost is not yet all out of the ground. Freezing and thawing weather with cold nights is telling on the winter wheat crop. Very little warm weather so far this season, and wheat shows no signs of growth. There is little talk of plowing up wheat in Central Indiana. Late sown wheat looks much worse than the early sown. The weather has been severe on the wheat during the last two weeks. In Southern Indiana the ground thawed out three or four inches, when a heavy rain came, then a cold spell which froze up the ground solid. Wheat has not yet begun to grow. We are having increased reports of damage to the wheat, as the weather has been trying, more so than at any time during the season.

OHIO.—In Northern Ohio wheat is looking fine and is beginning to grow. But few reports of damage and the general condition of the crop as compared with that of a year ago at this date is fully as good. There seems to be nothing to encourage higher prices in wheat and farmers are taking this view of the situation and are selling quite freely. In Central Ohio frost is not yet out of the ground. Wheat is in fair condition, although it shows little sign yet of growth. There is plenty of moisture in the ground to give the crop a good start. The condition of wheat in Southern Ohio compares favorably with a year ago. There are few reports of damage. No oats are sown yet, but a great deal of clover seed has been sown during the present week. Millers are becoming closer buyers as the season advances.

WINTER WHEAT.—Weather conditions the past week have been trying to the growing wheat crop over a considerable area, and notably where much of the crop is lacking in the usual condition of vigor for the period in the season. There is evidence of some impairment in the crop promise, but nothing definitely can be stated as to injury or general outlook until the season is further advanced. There is a feature in the wheat crop conditions of the present period in comparison with earlier years which is often forgotten or overlooked. This is the introduction of the drilling system, now in general use, which fortifies the plant of backward growth against winter contingencies in a better manner than the old time broadcast sowing. There is nothing positively discouraging to be said of the general outlook of the winter crop at this juncture, while conditions may be counted as favorable for the spring grain regions. It would be too much, however, to count on a full production of winter wheat this season.—*Cincinnati Price Current*.

GOVERNMENT CROP REPORT.—The estimated proportion of wheat on hand is 26.2 per cent. of the last crop, the smallest percentage in ten years. The quantity on hand aggregates 135,000,000 bushels, or 36,000,000 bushels less than last March, and 23,000,000 bushels more than the remnant of the very small crop of 1890. A very large proportion is found in states that do not spare a bushel for commercial distribution, and only 34,000,000 bushels in the principal spring wheat states, more than half of which is required for seed in the spring. Of the winter wheat states only Kansas and California have any considerable surplus available for commercial distribution. The crop report for March of the Department of Agriculture relates to the distribution of corn and wheat and the stocks remaining on farms. It is not a census of individual holdings of growers, but is based on country estimates of the percentage of last year's product remaining, made by a board of correspondents in each county and also by an independent board reporting to the state. All grain, including surplus of previous years, is in-

cluded. These separate results are scrutinized, obvious errors and inconsistencies corrected, differences harmonized and ultimate statements tabulated by states to show both percentages and aggregate quantities. The corn on hand, as estimated, aggregates 626,847,370 bushels, or 38.5 per cent. of the last product. This proportion has been exceeded in March four times in the last ten years, and the quantity has been exceeded five times. The consumption of eight months, 1,001,616,630 bushels, only exceeds that following the smaller crops of 1887 and 1890. The aggregate sold from farms to go beyond county lines is 277,379,000 bushels, or 17 per cent. of the crop. The proportion merchantable is 1,345,445,000 bushels, or 82.6 per cent. The values returned for merchantable corn average 42.9 cents, for unmerchantable 27.7 cents, making an aggregate of \$655,030,000, which exceeds the December valuation by \$13,000,000, averaging 40 cents per bushel. The amount of wheat exported in twelve months is 191,000,000 bushels, required for consumption 300,000,000 bushels, seed used 54,000,000 bushels, visible stocks 79,000,000 bushels; a total of 624,000,000, against an apparent supply of 728,000,000 bushels. There is, therefore, an apparent excess of distribution from the last two crops of 31,000,000 bushels as compared with previous estimates, showing if present estimates are correct, which cannot be positively assured, that the crops of 1891 and 1892 were underestimated by 2 or 3 per cent., which would be a very close margin on the safe side. Very little old wheat is reported on hand. The average weight of the crop per measured bushel, as calculated from the returns of millers and state agents and correspondents is 57.5 pounds, reducing the estimated product to 494,000,000 commercial bushels.

MEXICAN CORN.

A Texas farmer writing to the *Dixie Farmer* says Maize Ligerio is the earliest Mexican corn that I know of. Planted in August we can have roasting ears in two months and five days from time of planting, and it will yield fifty bushels per acre. A barrel of this corn will shell over sixty pounds of grain. This variety will sell for 20 to 25 cents per bushel more than American corn. I have planted many varieties, among them the Hickory King, Blunt's Prolific, Leaming, Dr. Woodhull and Landreth's Extra Early Dent, and not one of those varieties that I have mentioned will do as well and shell as much per barrel as the Mexican Early corn will. This variety has a smaller cob than the Hickory King. The Mexicans say that it makes better bread than the American corn does, therefore it sells for a better price.

FOR A UNIFORM BILL OF LADING.

The annual report of the Chicago Freight Bureau of Merchants, the Board of Trade and manufacturers gives information regarding railroad rates and transportation matters. Regarding the efforts made to secure a uniform bill of lading, the report says:

Much valuable work upon this subject has been performed during the year. The question of a uniform bill of lading has been brought before the National Board of Trade, and that body passed resolutions of recommendation to Congress in line with the efforts of the National Transportation Association and of this bureau. May 31, 1892, the matter was ably presented to the committee on foreign and interstate commerce of the House of Representatives by the committee of the National Transportation Association. Representatives of the carriers were also present and addressed the committee. A strong memorial was forwarded to the House of Representatives committee, and it was agreed by that committee to report favorably to the House of Representatives an amendment to the interstate law, supporting the principles advocated by this bureau and the National Transportation Association, namely, to compel the carriers of the United States to furnish all shippers a uniform bill of lading, in which common law liability only of said carriers shall be expressed, and the early establishment of a uniform classification, the rules and conditions whereof shall be just and reasonable.

Timothy seed, amounting to 338,033 pounds was exported in January, against 1,351,212 pounds in the preceding January; and in the seven months ending with January 2,203,812 pounds, valued at \$101,905, was exported; compared with 5,068,203 pounds, valued at \$214,631, in the corresponding period of 1891-92.

Queries and Replies.

Questions and answers are inserted under this head free of charge and all are invited to avail themselves of this column.

No. 12. To Change Bushel Prices to Cental Prices.—In reply to 'Query No. 10' in the last number of the AMERICAN ELEVATOR AND GRAIN TRADE I would say that a very neat vest-pocket book of tables by which cental prices for seeds can be easily found from bushel prices, and vice versa, has been published by the Albert Dickinson Company of Chicago, Ill.—ANOTHER READER.

No. 13. Power Required for Rolls.—Will you please state through your columns what size power of gasoline engine would be necessary to drive a set of 9x18 corn rolls? Is a gasoline engine as powerful as a steamer?—SUBSCRIBER. [Ans.: A gasoline engine of from 4 to 7 horse power would be necessary to drive a set of 9x18 corn rolls. The power varies according to capacity, speed, differential, length and style of rolls. The gasoline engine is as powerful as the steam engine; but the gasoline engine for a given power is made larger and heavier than the steam engine alone, without boiler.—ED.]

PROPOSED CHANGE IN MISSOURI'S WAREHOUSE LAW.

A substitute has been submitted by the senate committee for the obnoxious bill introduced by Senator Baskett, and he has concurred in the amendments, so the chances for the passage of the bill are good. It is entitled an act to repeal sections 5607, 5614, 5615 and 5648, article 3, chapter 87, of the revised statutes of Missouri, 1889, entitled "Inspection of Grain," and to insert in lieu thereof new sections, to be known as sections 5607, 5614, 5615 and 5648. The bill is as follows:

Be it enacted by the General Assembly of the State of Missouri, as follows:

SECTION 1. Section 5607, article 3, chapter 87, of the Revised Statutes of Missouri, 1889, is hereby repealed, and the following section inserted in lieu thereof, to read as follows:

Sec. 5607. All buildings, elevators or warehouses, wherever state grain inspection may be established by the state board of railroad and warehouse commissioners in this state, and having a capacity of not less than fifty thousand bushels, erected and operated, or which hereafter may be erected and operated, by any person or persons, association, copartnership or corporation, for the purpose of storing the grain of different owners for a compensation, are hereby declared public warehouses, and the person or persons, associations, copartnership or corporation owning such building or buildings, elevator or elevators, warehouse or warehouses, which are now or may hereafter be located or doing business within this state, as above described, whether said owners or operators reside within this state or not, are public warehousemen within the meaning of this act.

SEC. 2. That section 5614, of said article and chapter, be and the same is hereby repealed and the following section enacted in lieu thereof:

Sec. 5614. Public warehousemen shall not mix any grain of different grades together, nor select or mix different qualities of the same grade for the purpose of storing or delivering the same, nor shall they deliver or attempt to deliver grain of one grade for grain of another grade, nor in any way tamper with grain while in a public warehouse in his or their possession or custody, nor permit the same to be done by others with the view or result of profit to anyone; and in no case shall grain of different grades, either from the general stock or from special bins, be mixed together while in store or control of such public warehousemen: Provided, that the provisions of this section shall not apply to grain in such warehouse belonging to the owner, lessee or manager thereof; and provided further, that any public warehousemen may, on the written request of the owner of any grain stored in a special bin, upon the surrender of the receipt thereof, be permitted to dry, clean or otherwise change the condition or value of any such lot of grain.

SEC. 3. That section 5615, of said article and chapter, be and the same is hereby repealed and the following section enacted in lieu thereof:

Sec. 5615. Whenever it may be necessary, in order to preserve the condition of any bin or lot of grain belonging to any person stored in a public warehouse, to run said grain through machinery to air, clean or otherwise improve its condition, and it is so desired by the owner, this may be done, but in such manner as will insure the contents of each bin or lot intact, and of the same grade as when stored; but this shall not be done except under the supervision of an authorized inspector under this article.

SEC. 4. That section 5648, of said article and chapter,

be and the same is hereby repealed and the following section enacted in lieu thereof:

Sec. 5648. The commissioners shall establish a proper number and standard of grades for the inspection of grain, with due regard to the prevailing usages of the markets of this state, the interests of both producers and dealers, and as near as may be to conform with standards of grade adopted by leading markets of the United States; in addition to which, such grades as may have been or may be hereafter established or recognized in other states and territories shall prevail and lawful in this state when used and applied in dealings had in and with grain produced in such other state and territory, so that grain produced in other states and territories may be sold and handled in this state under the same grades prevailing at the place of the production of said grain: Provided, no modification or changes of grades shall be made, or any new ones established, without public notice being given of such contemplated changes for at least twenty days prior thereto, by publication in three daily newspapers, one of which shall be printed in German, printed in this state; and provided further, that no mixture of old or new grades, even though designated by the same name or distinction, shall be permitted while in store except as in this act provided.

SEC. 5. Whereas, the meaning as to what constitutes a public warehouse has not heretofore been popularly understood, it creates an emergency under the constitution; therefore, this act shall take effect and be in force from and after its passage.

ELEVATORS AT HEAD OF LAKE SUPERIOR.

The elevator capacity of the head of the lakes is at present 21,200,000 bushels. The only two cities in the country which have elevator capacity in excess of this amount are Chicago and New York, that of the former being 30,075,000 bushels and the latter 27,275,000 bushels. The growth of wheat receipts at this point has been phenomenal, and for two years this great elevator capacity has been inadequate to handle the grain seeking an outlet to the eastern markets via the head of the lakes. The elevators are now crowded to their utmost and railroads have had to refuse grain destined for our elevators, because of the uncertainty of securing room.

To care for the surplus lines and to open new territory elevators are now being built in Superior for an additional capacity of over 6,000,000 bushels and in Duluth of over 1,000,000 bushels, which will place Superior-Duluth second in the United States in point of elevator capacity. Besides this a bill is pending in the Minnesota Legislature for the erection of a state elevator at Duluth of at least 2,000,000 bushels' capacity, and a like measure in the North Dakota Legislature for the erection of an elevator at Superior. Should either one of these be built it will add enough to our capacity to enable us to outrank Chicago. But that is not all. Secretary Baraun of the Duluth Elevator Company, in a speech before the Superior Board of Trade last week said that there was another four or five millions of elevator capacity in sight for Superior that he knew of. Taken altogether, another eighteen months will, no doubt, make Superior-Duluth the largest primary wheat market in the world, having an elevator capacity far outranking Chicago, with Superior herself having a capacity hugging close the 20,000,000 mark.—*Inland Ocean, Superior, Wis.*

The storage capacities credited to Chicago and New York include only the public elevators. The private elevators of Chicago now have as great capacity as the public houses and a number of new ones are being erected. The capacity of New York's private houses is also large.

In January we imported 786,000 pounds of rice from the Hawaiian Islands, and 7,987,293 pounds of rice flour, rice meal and broken rice from other countries, against 580,000 pounds from the Hawaiian Islands, and 10,332,901 pounds from other countries in the preceding January. For the seven months ending January the imports were 6,875,000 pounds, valued at \$292,480, from the Hawaiian Islands, and 75,518,138 pounds, valued at \$1,373,046, from other countries; compared with 4,100,400 pounds, valued at \$213,891, from the Hawaiian Islands, and 74,874,720 pounds, valued at \$1,389,952, from other countries, for the seven months ending with January, 1892. We re-exported in the seven months 54,469 pounds of Hawaiian rice, valued at \$1,509, and 5,879,138 pounds of other foreign rice, valued at \$120,870; against 13,610 pounds of Hawaiian, valued at \$454, and 5,983,770 pounds of other foreign rice, valued at \$114,850, in the corresponding period of 1891-92.

Trade Notes.

Advertise! Advertise!
Wealth is won by enterprise;
Slow-Go sits and sobs and sighs,
Advertise.

Blow the horn and beat the drum;
Advertise and trade will come;
He who don't will wait in vain,
Losing while his neighbors gain.

Flagg & Guyman, manufacturers of grain scales at Lewiston, Ill., have been succeeded by the Duplex Scale, Lumber & Coal Company.

J. M. King is about to move his grain separator plant to Winona from Rochester, Minn. He is doing a business of about \$30,000 annually and employ fifteen to twenty men.

The Baldwin Bros. fanning mill factory has been completed at Grand Forks, N. D., and the firm are now making mills to supply the demand of the coming season. These mills have been still further improved in many respects.

Frank Kaucher, the architect and builder of St. Joseph, Mo., has planned, built and equipped ten grain elevators during the season just closed, in Kansas, Nebraska, Iowa and Indiana. In his office, 410 German American Bank Building, he has now under way the plans for large grain elevators in Virginia, Kentucky, Indiana and Texas.

A mistake made by many advertisers is that they look for too much cheap advertising. When you are sick do you look around for the cheapest doctor? Or if you want to engage a lawyer do you look for the low-priced and most obscure? Certainly not. The best evidence of the value of a paper as an advertising medium is its ability to secure and hold as subscribers the best paying class of readers.

The question is, "How and where to advertise?" There is no doubt about it that the trade journal is the only true medium, because every reader is a probable buyer and you can talk direct to the trade. There is no lost circulation; every copy issued carries its message direct to those who buy your goods. With daily and general commercial papers not one-quarter of their circulation is useful to you; the other three-quarters reach a class who are not at all interested in your goods. Another point is that the thousands who subscribe for their trade papers look there, and there only, for announcements of new goods, changes in prices and other matters relating to their trade.

Among the many patents issued by the patent office on Feb. 28, 1893, was No. 492,513, granted to Mr. Alvin C. Kanneberg of the Kanneberg Roofing Company for an improvement in sheet metal roofing. The issuance of this patent has been strenuously contested in the patent office, there having been two interferences and five hearings all of which were decided in favor of Mr. Kanneberg. One of the interferences was with Mr. Thomas C. Snyder and Mr. Thomas C. Belding on a patent which had previously been issued to them as joint inventors, and by them assigned to "The Canton Steel Roofing Company" and the other was with Mr. Snyder on an individual application for a patent on the same device. These various interferences having been determined in favor of Mr. Kanneberg, gives to him a patent for a valuable improvement in sheet metal roofing, the validity and novelty of which the parties who formerly contested for it are now precluded from denying. The Kanneberg Roofing Company, Canton, O., have recently enlarged their plant and now occupy the entire block, between Oak street and the electric light station on East Seventh street, and have now a factory fully equipped with modern machinery for the manufacture of all kinds of steel and iron roofing, siding, ceiling, metallic shingles, eave trough, conductor pipe, etc.—*News-Democrat, Canton, O.*

In the seven months ending with January we imported 733,040 bushels of wheat, valued at \$520,106, and 326 barrels of wheat flour, valued at \$1,861; against 1,822,366 bushels of wheat, valued at \$1,533,529, and 394 barrels of flour, valued at \$2,724, in the corresponding months of 1891-92. We re-exported in the seven months 472,188 bushels of foreign wheat, valued at \$322,635, and no flour; against 875,677 bushels of wheat, valued at \$744,311, and 102 barrels of flour, in the seven months ending with January, 1892.

INCIDENTALS.

The Argentine Republic will make a fine and extensive exhibit of its agriculture at the World's Columbian Exposition, Chicago.

Broom corn valued at \$12,470 was exported in January, against \$12,173 in January, 1892, and during the seven months ending with January \$90,876 worth was exported, compared with \$168,268 worth in the corresponding period of 1891-92.

Barley malt, amounting to 130 bushels was imported in January, against 1,574 bushels in the preceding January; and for the seven months 2,426 bushels, valued at \$3,046; against 3,446 bushels, valued at \$4,222, for the corresponding period ending January, 1892.

To Mexico we exported 418,411 bushels of corn in January, against 49,577 bushels in January, 1892; and during the seven months ending with January we exported 5,268,661 bushels to that country, against 208,755 bushels during the corresponding period of 1891-92.

San Francisco shipped during the past season up to March 1, 1,151,421 centals of barley, against 785,340 centals in the corresponding period of the preceding season. For the whole of the preceding season, which ended July 1, 1,037,982 centals of barley was shipped.

Hay, amounting to 3,759 tons was exported in January, against 2,309 tons in the preceding January; and during the seven months ending with January 20,233 tons of hay, valued at \$327,413, was exported; against 19,081 tons, valued at \$319,275, during the corresponding period of 1891-92.

Flaxseed, amounting to 11,951 bushels, valued at \$16,479, was imported in January, against none the preceding January; and 27,858 bushels, valued at \$39,148, was imported in the seven months ending with January; against 238,346 bushels, valued at \$263,959, in the corresponding period of 1891-92.

Flaxseed, amounting to 2,721 bushels was exported in January, against 374,951 bushels in January last year; and 1,616,007 bushels, valued at \$1,936,680, was exported in the seven months ending with January; against 3,391,419 bushels, valued at \$3,679,588, in the corresponding months of 1891-92.

Clover seed, amounting to 985,560 pounds was exported in January, against 3,083,399 pounds in January last year; and during the seven months ending with January 6,775,529 pounds, valued at \$796,177, was exported; against 16,705,525 pounds, valued at \$1,368,813, during the corresponding period of 1891-92.

Corn, amounting to 1,530 bushels, valued at \$1,068, was imported during the seven months ending with January; against 14,961 bushels, valued at \$10,496, in the seven months ending with January, 1892. No corn was re-exported in the seven months, against 9,731 bushels, valued at \$7,196, in the corresponding period of 1891-92.

Oats, amounting to 5,917 bushels, valued at \$2,107, was imported during the seven months ending with January; compared with 9,501 bushels, valued at \$3,439, during the corresponding period of 1891-92. Of foreign oats we re-exported none in the seven months, against 6,025 bushels, valued at \$2,107, in the seven months ending with January, 1892.

Rye, amounting to only 143 bushels, valued at \$291, was imported during the seven months ending with January; against 83,527 bushels, valued at \$67,495, during the corresponding period of 1891-92. No foreign rye was re-exported in the seven months ending with January, against 16,172 bushels, valued at \$12,937, in the corresponding period of 1891-92.

A correspondent of the Minneapolis *Market Record* thinks the railroads should be compelled by law to give all independent and farmers' elevators and warehouses the same privileges in location, trackage, transportation and all other conveniences which the elevator companies have. This, he thinks, would be a practical benefit to all shippers.

An incubus has been removed from the trade in agricultural products by the defeat in the House of Representatives of the Hatch Anti-Option Bill. This is believed to be not merely a temporary defeat, but practically the end of the measure. Its advocates declare that they will keep up the agitation, but their prestige is gone, and they will hereafter fight against odds. The wheat market responded quickly to the news, but the unprecedented

quantity of the cereal in sight operates against a material advance in price.—*Economist*.

The first grain elevator in Chicago was built by Capt. Richard C. Bristol, an old pioneer of the lake marine. Horse power actuated the machinery. The first steam power elevator was built by him when the Illinois and Michigan Canal was completed. The building was of brick and would hold 100,000 bushels of grain. The captain was one of the organizers of the Chicago Board of Trade.

The Minnesota Legislature, next to that of "bleeding Kansas," holds the record for cranky legislation. Its granger law makers have made it so that all elevators to be located at the head of the lakes in the future will seek the Wisconsin side of the bay in order to escape Minnesota's obnoxious elevator laws. This is all very good as far as Superior is concerned, but does not help, to any great extent, our neighbor across the bay.—*Inland Ocean, Superior, Wis.*

Barley, amounting to 207,812 bushels was imported in January, against 230,629 bushels in January last year; and for the seven months our imports of barley aggregated 1,404,239 bushels, valued at \$660,147; against 2,488,086 bushels, valued at \$1,256,697, for the corresponding months of 1891-92. Of foreign barley 15,124 bushels, valued at \$7,563, was re-exported in the seven months ending with January, against 435,396 bushels, valued at \$214,622, in the corresponding period of 1891-92.

It is the opinion of experienced farmers that there will be considerable loss in corn this winter, caused by shrinkage of the immature grain gathered last fall. In general, few farmers appreciate the amount of shrinkage in grain and other farm products, or how considerable the loss may be from this cause. Wheat in six months will sink two quarts to the bushel, or over 6 per cent. In the same time 100 bushels of shelled corn will be reduced to 80, while in the case of potatoes, taking into account those that rot, the loss between October and June will be over 33 per cent.—*Bulletin, Bloomington, Ill.*

Grain dealers at Baltimore holding three months' policies have been permitted to transfer them so as to cover grain in any elevator without extra cost. Recently the underwriters prohibited such transfers and imposed upon the grain dealers the onerous and unnecessary burden of taking out separate policies for grain stored in different elevators. Thereupon the grain men threatened to form a mutual company to insure their own grain and thus brought the insurance men to their senses. The Board of Underwriters hastened to suspend the rule for two months, and when that time has expired will no doubt, abolish the unjust rule. Such are the results of combined effort.

THE HAY TRADE.

British ports continue to absorb large quantities of Canadian hay. There is a slightly easier feeling on both sides of the Atlantic. The easier feeling in England is caused by supplies on the way to Liverpool and London from South America, a whole steamer's cargo being reported bound for the latter port. It is, therefore, important that country shippers should see that the standard of their shipments do not continue to be lowered, as they have been of late, causing great complaints to be made by English houses. And now that the new South American competitor for the British trade has sprung up, it is imperative that country dealers and shippers maintain the standard of their shipments, or depend upon it, they will lose a most important market for their hay, and if once lost it will be difficult to regain it. The great mistake on the part of country dealers has been that they considered anything good enough for export, and the result is that Canadian hay is beginning to be held in disrepute on the other side, which may lead to serious results, especially now that South American shippers are sending whole steamer loads to England. We therefore urge the absolute necessity of improving the standard of all hay delivered on orders for the English market, so that the slur that has already been cast upon the quality of Canadian hay may be wiped out. Every mail from England has of late brought a number of complaints regarding the falling off in the quality of our shipments, and unless this drawback is remedied it will soon be found that a good market for our surplus hay has been lost, in which event farmers would have to take a good deal less money than they are now getting.—*Montreal Trade Bulletin*.

EFFECT OF CHEAP SILVER ON WHEAT VALUES.

The low price of silver has had a most disastrous effect upon the value of wheat in India and Russia, America's two strongest competitors in supplying the demand for the grain in continental Europe and Great Britain.

Take the case of India, for instance. The rupee, the national unit of values, is a silver coin of the face value of two shillings sterling (48 cents). The average price of the rupee in Europe was 1s. 3l. (30 cents) in 1892. It is taken at its face value of 48 cents by the Indian wheat grower. The English dealer buys his rupees at their value in the British market, and buys wheat with them, having a margin of 18 cents on every 48 cents he pays out. It is an enormous advantage, and enables him to hold the British market up to the amount India has to sell, or the demand requires.

The same state of affairs obtains in Russia, where the national coin, the silver rouble, is worth 3s. sterling (72 cents), but it can be purchased in Great Britain for 2s. 2d. (52 cents).

PRODUCTION AND IMPORTS OF RICE.

During the past three years our supply of rice has been as follows:

DOMESTIC PRODUCTION—THREE YEARS.		Pounds.
1890-1	Total crop grown in the U. S.	136,750,000
1891-2	" " "	155,665,600
1892-3	" " (est.)	225,000,000

All the foregoing has been used within our borders, and to it has been added the following in way of foreign imports, uncleaned and paddy being reduced to the equivalent of clean:

FOREIGN IMPORTS—TWO YEARS.		Pounds.
1890-1	Imported for use in the U. S.	185,379,566
1891-2	" " "	141,608,151

The foregoing amounts combined show the consumption of rice for the respective years:

LOCAL CONSUMPTION OF RICE IN THE U. S.		Pounds.
1890-1	Consumption domestic and foreign	322,129,566
1892-3	" " "	297,273,751

It is estimated that 50 per cent. of the foreign imports were used for manufacturing purposes.

EXPORTS FROM ATLANTIC PORTS.

The exports of breadstuffs, as compiled by George F. Stone, secretary of the Chicago Board of Trade, from Atlantic ports during the two weeks ending February 11, as compared with same weeks last year, have been as follows:

	For week ending March 11. March 12.		For week ending March 4. March 5.	
	1893.	1892.	1893.	1892.
Wheat, bu ...	903,000	2,229,500	1,631,000	1,986,300
Corn.....	785,000	2,153,900	659,000	3,343,200
Oats.....	182,000	27,000	134,000	96,400
Rye.....	9,000	25,000	8,000	66,000
Flour, bbls.....	226,000	382,100	245,000	334,100

SCREENINGS.

Betsy and I are out to-day,
And this is the reason why:
I went to town with a load of hay,
And returned with a load of rye.

The hog is Premier in King Corn's cabinet.

Judge Corn is a candidate for the office of senator from Wyoming.

Wheat is making as much disturbance as if it had been distilled for internal use.

Jsmith—Say B Jones, I am going to send some of these grain cleaner people to see you pretty soon. B Jones—What for, old man? Jsmith—Why I think a good many of your storics need a smut machine.

When a man is young he feels his oats,
And takes his sweetened rye in horns;
But he barely reaches middle age
When he begins to feel his corns.
In either case the fact is plain;
It always goes against the grain.

—*New York Journal*.

VISIBLE SUPPLY OF GRAIN.

The following table shows the visible supply of grain Saturday, March 11, 1893, as compiled by George F. Stone, secretary of the Chicago Board of Trade:

In Store at	Wheat, bu.	Corn, bu.	Oats, bu.	Rye, bu.	Barley, bu.
Albany	15,000	14,000	7,000	10,000	
Baltimore	1,063,000	996,000	158,000	84,000	
Boston	57,000	100,000	4,000	1,000	12,000
Buffalo	2,382,000	73,000	65,000	44,000	452,000
do afloat	498,000	288,000			
Chicago	15,214,000	6,431,000	2,208,000	381,000	55,000
do afloat	4,153,000	1,379,000	316,000		
Cincinnati	10,000	6,000	16,000	1,000	116,000
Detroit	2,007,000	35,000	21,000	6,000	118,000
do afloat	571,000				
Duluth	15,959,000	341,000		15,000	5,000
do afloat	571,000				
Indianapolis	183,000	150,000	73,000	4,000	
Kansas City	1,327,000	281,000	68,000	16,000	
Minneapolis	2,020,000	29,000	37,000	126,000	233,000
do afloat	82,000				
Montreal	11,955,000	180,000	40,000	1,000	62,000
New York	569,000	14,000	519,000	35,000	81,000
do afloat	10,328,000	540,000	808,000	72,000	149,000
Oswego	304,000	66,000	84,000	23,000	20,000
Peoria	156,000	226,000	146,000	21,000	23,000
Philadelphia	1,022,000	505,000	93,000		
St. Louis	4,927,000	1,827,000	107,000	31,000	26,000
do afloat	50,000				
Toledo	3,681,000	1,604,000	102,000	43,000	
Toronto	322,000		19,000		38,000
On Canals	58,000				
On Lakes					
On Miss. River		272,000	4,000		
Grand total	79,103,000	15,808,000	4,932,000	914,000	1,520,000
Same date last year	40,817,000	12,303,000	3,942,000	1,651,000	1,320,000

INSPECTED RECEIPTS AT CHICAGO.

According to the report of Chief Grain Inspector P. Bird Price the grain received at Chicago during the month of February was graded as follows:

WINTER WHEAT.

Railroad.	White.			Hard.			Red.			No Grade.
	2	3	4	1	2	3	1	2	3	
C. B. & Q.	2			55	31		27	55	26	2
C. R. I. & P.				7	18		11	23	8	1
C. & A.					11			39	15	1
Illinois Central					1			27	12	
Freeport Div.	1			6	1		1			
Galena Div. N. W.	1			5	2			1		
Wis. Div. N. W.	2						9	21	1	
Wabash				1	1		2	6	3	32
C. & E. I.							3	20	3	
C. M. & St. P.	2	4		2	1		14	31	5	
Wisconsin Cent.										
C. G. Western				103	181		33	7	1	
A. T. & S. Fe.				19	296		288	28	9	
Through & Spec.				22	20		311	36	15	
Total each grade	8	6		220	563		703	294	98	36
Total W. wheat										1928

SPRING WHEAT.

Railroad.	Northern.			No Grade.	White.			Mixed Wheat.
	2	3	4		2	3	2	
C. B. & Q.	86	436	116		3	5	101	3
C. R. I. & P.	14	31	16				28	1
C. & A.		3	9				1	
Illinois Central			1					
Freeport Div.	19	11	2		1			
Galena Div. N. W.	22	205	48		1		13	1
Wis. Div. N. W.	2	36	2				1	
Wabash	2	1						
C. & E. I.			1					
C. M. & St. P.	198	353	35		3	1	5	1
Wisconsin Cent.			8		2			
C. G. Western	32	21	15		1			
A. T. & S. Fe.	1	7	2				3	1
Through & Spec.	367	272	21		3	14	65	2
Total each grade	743	1379	270		11	21	217	6
Total Spg. wheat								2650

CORN

Railroad.	Yellow.		White.		2	3	4	No Grade.
	2	3	2	3				
C. B. & Q.	48	277	7	26	50	481	56	6
C. R. I. & P.	46	48	6	3	145	218	6	
C. & A.	34	222	18	74	40	168	110	
Illinois Cent.	182	825	46	178	53	313	248	7
Freeport Div.	2	14			4	5	11	1
Gal. Div. N. W.	52	157	1	6	47	176	49	
Wis. Div. N. W.		2					1	
Wabash	19	74	11	21	10	24	35	1
C. & E. I.	7	155	34	14	7	121	121	1
C. M. & St. P.	2	19		1	5	21	11	
Wis. Central								
C. G. Western	17	65		2	19	186	13	
A. T. & S. Fe.	68	199	9	25	137	314	18	
Thrh & Spcl	9	587		17	10	198	41	3
Total each grd	486	2644	112	367	527	2225	720	19
Total corn								7160

OATS

Railroad.	White.			White Clipped.			No Grade.
	1	2	3	1	2		
C. B. & Q.	1	183	307	85	71		7
C. R. I. & P.	10	339	39	103		2	
C. & A.	21	63	29	11			1
Illinois Central	9	117	105	22			
Freeport Div.		215	12	71			1
Galena Div. N. W.	25	485	34	110			2
Wis. Div. N. W.	3	113		29		1	
Wabash	1	16	12	2			
C. & E. I.	3	29	16	15			
C. M. & St. P.	5	424	39	145			3
Wisconsin Central	6	9	2	2			
C. G. Western	15	71	11	23			
A. T. & S. Fe.	7	63	32	3			
Through & Special	5	84	14	18		2	3
Total each grade	1	293	2335	130	628	5	18
Total oats							3710

RYE.

Railroad.	1			2	3	No Grade.
C. B. & Q.				16	22	1
C. R. I. & P.				9	3	
C. & A.					1	
Illinois Central					4	
Freeport Div.				1	1	
Galena Div. N. W.				10	5	
Wisconsin Div. N. W.				11	3	
Wabash						
C. & E. I.				2	1	
C. M. & St. P.				10	9	
Wisconsin Central						
C. G. Western				5	1	
A. T. & S. Fe.				24		
Through & Special				35	8	
Total each grade				123	64	1
Total rye						188

BARLEY.

Railroad.	Bay Brewing.		Chevalier.	3	4	5	No Grade.	Total No. Cars by Each Road.
C. B. & Q.	1			59	47	4		2702
C. R. I. & P.				4	39	12	1	1192
C. & A.				1				872
Illinois Central					2			2157
Freeport Div.				20	40			444
Galena Div. N. W.				1	33	18	3	1513
Wis. Div. N. W.				248	256	20		760
Wabash								275
C. & E. I.								532
C. M. & St. P.				286	187	2		1824
Wisconsin Central				2				26
C. G. Western				8	56	3		895
A. T. & S. Fe.								1553
Through & Special				10	4			2198
Total each grade	1	1		671	649	44	1	
Total barley								1567
Total all grain								16,943

FLAXSEED AT CHICAGO.

The monthly receipts and shipments of flaxseed at Chicago during the past fourteen months, as reported by S. H. Stevens, flaxseed inspector of the Board of Trade, were as follows:

Months.	Receipts.		Shipments.	
	1893.	1892.	1893.	1892.
January	396,550	782,650	323,261	296,355
February	187,550	556,050	233,556	200,884
March		592,900		223,395
April		547,800		702,589
May		309,650		743,930
June		563,750		577,002
July		612,700		806,375
August		729,300		1,099,113
September		761,750		974,668
October		1,452,000		1,150,685
November		1,395,350		1,365,880
December		743,050		228,160
Total	584,100	9,046,950	556,817	8,278,436

RECEIPTS AND SHIPMENTS AT CHICAGO.

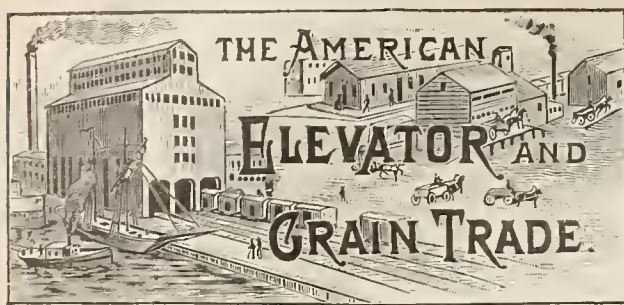
The following table, compiled by George F. Stone, secretary of the Board of Trade, shows the receipts and shipments at Chicago during February, 1893 and 1892, of seeds, hay and broom corn:

Repts.	Timothy lbs.	Clover, lbs.	Other grass seeds, lbs.	Flax-seed, bu.	Broom corn, lbs.	Hay, tons.
1893...	624,481	627,503	290,497	113,706	1,402,060	19,008
1892...	4,812,492	232,389	664,200	466,620	452,325	19,241
Ship'ts						
1893...	4,307,227	1,050,331	354,576	251,692	1,772,594	3,688
1892...	3,754,879	1,549,543	580,464	321,940	701,327	3,724

RANGE OF PRICES AT CHICAGO.

The daily range of prices of grain for February delivery at Chicago since February 15 and for March delivery since March 1 has been as follows:

FEBRUARY.	WHEAT.			CORN.			OATS.			RYE.		BARLEY.		FLAX SEED.	
	Low.	High.	Closing.	Low.	High.	Closing.	Low.	High.	Closing.	Low.	High.	Low.	High.	Low.	High.
15	73	75 ¹ / ₂	74	41 ⁵ / ₈	42 ⁵ / ₈	42	30 ¹ / ₂	31	50 ¹ / ₂	53	53	42	60	123 ¹ / ₂	
16	73 ³ / ₄	74 ³ / ₄	74 ¹ / ₄	41 ³ / ₄	42 ¹ / ₄	42 ¹ / ₈	30 ³ / ₄	30 ³ / ₄	50 ³ / ₄	53	53	40	65	124 ¹ / ₂	124
17	73 ¹ / ₄	74	73 ⁵ / ₈	41 ¹ / ₂	42 ¹ / ₂	41 ¹ / ₈	30 ¹ / ₂	30 ¹ / ₂	50 ¹ / ₂	53	53	38	63	124 ¹ / ₂	125
18	72 ¹ / ₂	73 ¹ / ₄	73	40 ¹ / ₂	41 ¹ / ₂	41	30	30 ¹ / ₂	50 ¹ / ₂	55 ¹ / ₂	56	42	68	124 ¹ / ₂	125
19															
20	73	73 ¹ / ₂	73	40 ¹ / ₂	41 ¹ / ₂	40 ³ / ₄	30	30 ¹ / ₂	50	52 ¹ / ₂	52 ¹ / ₂	48	65	124 ¹ / ₂	125
21	73 ¹ / ₄	73 ³ / ₄	73 ³ / ₄	40 ³ / ₄	41 ¹ / ₂	40 ³ / ₄	30	30 ³ / ₄	50	52 ¹ / ₂	52 ¹ / ₂	45	65	123	125
22	Washing (on's) Birth day.														
23	73 ¹ / ₂	74 ¹ / ₂	74	40	40 ¹ / ₂	40 ¹ / ₂	29 ¹ / ₂	30 ¹ / ₂	29 ¹ / ₂	52 ¹ / ₂	52 ¹ / ₂	42	65	121	123
24	73 ³ / ₄	74	73 ³ / ₄	40	40 ³ / ₄	40 ³ / ₄	30	30 ¹ / ₂	50 ¹ / ₂	52 ¹ / ₂	52 ¹ / ₂	40	62	120	121 ¹ / ₂
25	73	73 ¹ / ₂	73 ¹ / ₄	40	40 ¹ / ₂	40 ¹ / ₂	29 ¹ / ₂	30	29 ¹ / ₂	52	52	40	65	120 ¹ / ₂	120 ¹ / ₂
26															
27	72 ¹ / ₂	73 ¹ / ₄	72 ¹ / ₄	39 ³ / ₄	40 ¹ / ₄	39 ³ / ₄	29 ¹ / ₄	29 ¹ / ₄	29 ¹ / ₂	52	52	45	63	120 ¹ / ₂	112 ¹ / ₂
28	72 ³ / ₄	73 ¹ / ₄	73 ¹ / ₄	39 ³ / ₄	40 ¹ / ₄	40	29 ¹ / ₄	29 ¹ / ₄	29 ¹ / ₂	52	52	46	63	122	122
1	72 ¹ / ₂	73	72 ³ / ₄	39 ³ / ₄	40 ¹ / ₄	40	29 ¹ / ₂	30	30	52	52	46	63	122	122
2	73	75	74 ³ / ₄	40 ¹ / ₂	41 ¹ / ₂	44 ¹ / ₄	30	30 ¹ / ₂	50 ¹ / ₂	52	52	42	61	123	123
3	74 ¹ / ₂	75 ¹ / ₂	74 ¹ / ₂	40 ¹ / ₂	42	40 ¹ / ₂	30 ¹ / ₂	31	30 ¹ / ₂	52 ¹ / ₂	52 ¹ / ₂	43	63	123 ¹ / ₂	123 ¹ / ₂
4	74 ³ / ₄	74 ¹ / ₂	74 ¹ / ₂	40 ¹ / ₂	41 ¹ / ₂	41	30 ¹ / ₂	30 ¹ / ₂	50 ¹ / ₂	52 ¹ / ₂	52 ¹ / ₂	47	64	122	122 ¹ / ₂
5															
6	67 ³ / ₄	73 ³ / ₄	73 ³ / ₄	10 ³ / ₄	41 ¹ / ₄	41 ¹ / ₄	30 ¹ / ₄	30 ³ / ₄	30 ³ / ₄	52	52	40	63	121 ¹ / ₂	122
7	73	74 ¹ / ₂	73 ³ / ₄	40 ¹ / ₂	41 ¹ / ₂	41 ¹ / ₂	30 ¹ / ₂	30 ¹ / ₂	50 ¹ / ₂	50	52	44	63	121 ¹ / ₂	121 ¹ / ₂
8	73 ¹ / ₂	73 ³ / ₄	73 ³ / ₄	41 ¹ / ₂	41 ¹ / ₂	41 ¹ / ₂	30 ¹	31	50	52	41	61	61	121 ¹ / ₂	122
9	73	73 ³ / ₄	73	41 ¹ / ₂	42 ¹ / ₂	41 ¹ / ₂	30 ¹ / ₂	30 ¹ / ₂	50 ¹ / ₂	50 ¹ / ₂	51	44	60	121 ¹ / ₂	122
10	72 ¹ / ₂	74 ¹ / ₂	73	40 ¹ / ₂	41 ¹ / ₂	41 ¹ / ₂	30 ¹ / ₂	30 ¹ / ₂	50 ¹ / ₂	50 ¹ / ₂	50 ¹ / ₂	43	58	121 ¹ / ₂	122
11	73 ¹ / ₂	74 ¹ / ₂	73 ³ / ₄	41 ¹ / ₂	42	41 ¹ / ₂	30 ¹ / ₂	31	50 ¹ / ₂	51	53	40	63	121 ¹ / ₂	121 ¹ / ₂
12															
13	72 ³ / ₄	73 ³ / ₄	73	41	41 ¹ / ₄	41 ¹ / ₄	30 ³ / ₄	31 ³ / ₄	30 ³ / ₄	49 ¹ / ₂	49 ¹ / ₂	40	60	121 ¹ / ₂	121 ¹ / ₂
14	72 ³ / ₄	73 ³ / ₄	72 ³ / ₄	41	41 ¹ / ₄	41 ¹ / ₄	30 ³ / ₄	30 ³ / ₄	50	50	50	41	60	121 ¹ / ₂	121 ¹ / ₂



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This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching this trade. Advertising rates made known upon application.

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We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

CHICAGO, ILL., MARCH 15, 1893.

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A glance at our pages will show the reader that this journal has put on a new suit of clothes, to which the improved appearance manifested is due. It is our purpose to make the AMERICAN ELEVATOR AND GRAIN TRADE one of the handsomest as it is already one of the best read and appreciated class journals in the country. The best is none too good for our readers and advertisers, and this is only the first of several improvements which we have in contemplation.

CANAL TOLLS ON GRAIN.

The Dominion Government has put at end the discrimination in tolls on grain passing through the Welland Canal and transshipped at Ogdensburg, and the President has directed that until further notice the provisions of his proclamation of Aug. 18, 1892, be suspended in so far as they direct that a toll of 20 cents be levied on freight passing through the St. Mary's Falls Canal in transit to any part of the Dominion of Canada.

This will stop the fruitless retaliation for a time, but as soon as the Canadian canal at Sault Ste. Marie is completed probably tolls will again be levied upon export grain transshipped at American ports. Ogdensburg has the best facilities for transshipping grain, and American shippers naturally prefer that port, but the Dominion Government prefers they would transship on the Canadian side of the lake, so it may drive all this export trade away from Montreal or greatly reduce it in an attempt to compel shippers to accept inferior service. Its near-sighted prejudice may also lead it to levy a toll on all American grain regardless of where it is transshipped, which of course will drive this business away from Montreal.

The tolls on grain passing through the Welland Canal during the coming season will be 10 cents per ton, and the same amount on grain passing

through the St. Lawrence. Grain paying toll at the Welland will be passed free at the St. Lawrence.

TO ABOLISH THE BOARD OF TRADE.

Hardly is the Hatch Bill well out of the way, when the Chicago Board of Trade is called upon to face the possibility of a similar or worse bill passing the Illinois Legislature. The bill in question emanates from Representative Kent, of Chicago, and is simply the present law against bucket shops widened sufficiently to cover the Chicago Board. It provides punishment for selling for future delivery, unless the property so sold be described as to location and be, at the time of sale, actually owned by the seller or the person for whom the seller is acting as agent. Farmers are excepted from the operations of the bill, which would release S. W. Allerton and other members of the Board who own farms. In fact, if the bill should become a law, deeds to 40 acre farms would probably accompany each certificate of membership in the Board.

The attempt to make all sales contingent upon the possession of a warehouse certificate has not been conspicuously successful in the past. The law against bucket shops on which the Kent Bill is based, is a confessed failure. Twenty-five years ago the Illinois legislature passed a similar measure which was inoperative because the Supreme Court sat down upon it. The members of the Chicago Board are at a loss to determine whether the animus of the present bill is ignorance or the other thing. But the bill probably will not pass.

THE ST. LAWRENCE ROUTE FOR EXPORT GRAIN.

The New York rail carriers and others opposed to the improvement of the Erie canal have always scouted the claims made by the friends of the canal to the effect that the St. Lawrence route would eventually be a strong competitor for the transportation of our export grain. However, if the Corn Exchange of Montreal succeeds in having all tolls removed and the canals made free, the New York merchants and elevator men will have to exchange their song of derision for a wail of woe. American shippers are already looking to that route for relief from the heavy harbor charges at New York and the transfer extortion at Buffalo. The seeking shippers have not advertised their search extensively or entered any complaint, but competition has compelled them to seek the best at the lowest cost.

The *Trade Bulletin* of Montreal in a recent issue said, "Mr. Guthrie, of the grain firm of A. J. Sawyer & Co. of Duluth, was introduced by Mr. R. M. Esdaile to the members of the Montreal Corn Association on 'Change to-day. Mr. Guthrie's object is to see what freight arrangements he can make for the shipment of grain during the coming season, showing that grain men of the American Northwest still look to the St. Lawrence route for the conveyance of their grain to Europe."

Every reduction in the toll on grain passing through the Canadian canals will attract anew the attention of grain exporters to the St. Lawrence route. With them it is purely a matter of business. Competition requires them to seek the cheapest route. When the officials of the Dominion Government put aside their near sighted prejudice they may be able to recognize the fact that their country would profit greatly by an enormous incoming ocean tonnage if they would divert a large share of the export grain trade of this continent to that route. We say nothing of the outgoing tonnage, the supplies required by lake and ocean vessels, and the many employed in the trade.

With the St. Lawrence route free and navigable so that lake vessels could discharge their cargoes into ocean steamers without hindrance from tolls or shoals the grain exports of the Canadian Northwest and of this country would be larger each year than they would be without that valuable route. That route could be made to so materially reduce the cost of transporting grain

from our wheat fields to Europe that we could export grain at prices which now forbid. The improvement of this route would not only foster and facilitate our export grain trade but it would put the Erie canal on the list of useless swamps, a monument to the parsimony of the Empire State and a black blotch on the far-sighted enterprise of New York City merchants.

HATCH HITCHED.

The frisky colt from Missouri, after trying to break out of the congressional pasture of "regular order" was finally and completely broken to harness, and is likely to prove docile and tractable for the future; for a time at least. While Farmer Hatch all the time had a majority for his measure, he could not secure the necessary two-thirds vote to take up his bill, and a resort to filibustering tactics would have done no good. Thus, after keeping business in hot water for nearly two years, the Hatch-Washburn bill comes to an end with the Congress which gave it birth.

Of course, it is quite likely that some one will introduce a similar bill at the next session of Congress; but with far less likelihood of its passage than in the Congress just passed. In the first place public sentiment is more fully aroused to the danger of such a bill being enacted into law. Then, too, the farmers are, by no means, so unanimous in favor of anti-option as they were. In fact, a revolution of sentiment has occurred among them, and the fear of the "farmer vote," will not be so potent a factor with legislators. Lastly, whether with reason or not, President Cleveland is credited with being distinctly opposed to all legislation of this class; of making prohibitory laws under the guise of raising revenue. We believe the last has been heard of anti-option bills in Congress, bills that can command a majority, as Hatch's could at any time, for several years to come.

OUR SMALL ADVERTISEMENTS.

Readers will notice that the small advertisements under the head of "Miscellaneous Notices" and "For Sale" have been rapidly growing in number the past few months. This is because a good medium is bound to be appreciated by the transient advertisers, sooner or later. And the AMERICAN ELEVATOR AND GRAIN TRADE is one of the very best mediums through which to reach a large and widely scattered constituency of possible purchasers or possible sellers.

Almost any want can be supplied through these columns, and almost anything that anybody needs can be sold at a fair price. You can buy, sell or rent an elevator through these columns. You can secure help or get a situation. You can dispose of second-hand machinery or get the same by making your wants known. You can dispose of your business or secure a business opportunity. In fact, a small advertisement setting forth what you want is pretty sure to bring a distinct return. This is because this paper is widely read by an intelligent and well-to-do class of people.

If you want anything or want to sell anything, try one of these small advertisements. They cost little and may bring to you what you are seeking in vain among your personal surroundings.

KANSAS GRAIN DEALERS SUCCEED.

We are pleased to announce that the bill providing for track scales and clean bills of lading which was drawn up and championed by the Kansas Grain Dealers' Association has been passed by each house of the Kansas Legislature and will become a law. The original bill as published in the last issue of this journal was amended so as to include hay as well as grain and seeds, and instead of requiring carriers to deliver the full amount received one-fourth of one per cent. will be allowed the railroad company for natural shrinkage.

The law will go into effect as soon as published in the official state paper, but railroad companies will not be required to put in track scales for several months. The law reads that they shall

on or before July 1, 1893, construct and provide and thereafter keep and maintain in good order track scales, and any railroad company neglecting for six months after the taking effect of this law to put in track scales will be liable to a penalty of \$100 per day for each station. So it will be nearly six months before any action can be taken to secure the enforcement of the law. In the meantime it will be well for the Grain Dealer's Association to make a vigorous effort to enlarge its membership and get in good fighting condition. If it does not, carriers will be very backward in making the desired change and some will not put in scales until compelled to do so. The persistent fighting of a strong, well organized association is the only thing that will win in this matter if the railroad companies are disposed to ignore the law.

GRAIN INSPECTION AT SUPERIOR, WIS.

The Superior Board of Trade is attempting to secure the enactment of a public warehouse and state grain inspection law. It is reported, yet, we doubt it, that the proposed law will make all the elevators at that point public warehouses. Any warehouseman can operate his elevator as a private house if he so desires and bid defiance to laws and lawyers without number. It is a common law right of which he cannot be deprived. State supervision of public elevators is all right and proper at any grain center, but state inspection at Superior is not needed. It would not foster or benefit the trade at that point in any way. Another inspection department and another set of grades at the head of Lake Superior would only confound matters. Above all things uniformity and a minimum number of grades should be sought. Increasing the number of grades always adds confusion and retards trade.

The Minnesota grades now in use at Superior are well known, the inspection is reliable and the trade has every confidence in it. It is inexpensive and will never cost as much as it would should Superior establish an independent department. If the Superior Board of Trade attempted to run an inspection department as a money making bureau it would drive much grain to Duluth. The present inspection is not compulsory, and in this Superior has an advantage it seems desirous of throwing away.

Minnesota inspection should be retained, but Superior should be given credit in the reports for all grain received at that point. Its grain trade is growing rapidly and this year it will handle much more than ever before.

A STATE IN THE ELEVATOR BUSINESS.

North Dakota has appropriated \$100,000 to build a state elevator at West Superior, Wis., which shows how strong are the farmer workers in that state. If Wisconsin cedes the required ten acres for a site to North Dakota, which is very doubtful, some of the demagogues will secure control of the elevator and operate it to their own advantage. The agitators claim that the bill is intended "to insure the superior grain of North Dakota from being mixed with grain of inferior quality from farther south, thus protecting the farmers of the state from the depression of prices abroad resulting from this mixing which in turn depresses prices at home."

Little wheat is received at Duluth or Superior that is inferior to North Dakota wheat, so dealers and elevator men could not conveniently do much mixing even if they so desired. They are in the grain business for the profit they may get out of it, so are the dealers and exporters at our export ports, and when it is more profitable to mix grains it is done. British importers have bought Russian and Indian wheat filled with dung and all kinds of dirt for so many years that they do not mind it, in fact some prefer it. Even if they did make a sharp discrimination against mixed grain one elevator at the head of Lake Superior could not prevent the handlers at Buffalo, New York and other points between the producer and the consumer

from mixing the grain. Special bins in public warehouses are not very expensive, but would be necessary to ship grain through to the British consumer and preserve its identity.

The idea of building an elevator at Superior to prevent mixing is an insult to the honesty of the elevator men at that point. Any farmer or farmers can secure special bins in the elevators at that or other points and have the identity of their grain preserved. It is not necessary that the state go into the warehouse business. If it does it will be required to accept grain from all comers just as other public warehousemen, and the poor farmer in whose favor the state is attempting illegally to discriminate, will be left out in the cold. The purpose of the law is wrong and, if enforced, will bring much trouble to the state of North Dakota.

If the elevator men would introduce a bill providing for the cultivation by the state of all unoccupied land, the farmers might see the error of placing the state into competition with private enterprise.

INSPECTION FEES AT KANSAS CITY, KAN.

Because the Board of Trade of Kansas City, Kan., is reported to have cleared \$20,000 last year from the inspection of grain at that point, and to have declared a dividend of \$50 per share, the populist legislature wants the inspection department at that point investigated. An expensive investigation of the management of the chief inspector is not necessary. The lawmakers should investigate the inspection law and amend it so as to forbid the use of money received for inspecting grain in any way, except in the payment of the actual expenses of the grain inspection department.

Boards of Trade in that state having charge of the inspection of grain would then pay their inspectors better salaries and would reduce the inspection fee whenever the receipts made it possible. Grain inspection should be a source of revenue to no one but inspectors. The state is no more entitled to an income from this source than the Kansas City Board of Trade. It should be done at cost, which last year was less than half the fee now charged by the Board of Trade.

GRAIN LAWS OF MINNESOTA.

The Minnesota Legislature has done little else at the present session save introduce and consider bills bearing upon the grain trade. That the wisecracks will be able to get anything out of the confused mass of bills that will advance the interests of the grain dealer or the grower is doubtful. Many of the skulls doing service there have accidentally captured an idea regarding supposed abuses of the trade, but in each case it is a different idea and each captor maintains that he has the desired panacea.

Among other bills is one requiring railroads to build and operate warehouses for grain at all shipping stations, and fixing the charge for handling. This would make carriers go into the public elevator business and leave many points without buyers. Another bill provides for compartment cars for carrying in bulk the grain of different owners. Other things they are trying to legislate into existence is state elevators with small compartments so each farmer can have one, public inspection of grain delivered by teams, hundreds of miles distant from a public inspector. There are bills to make all elevators public in town and country, whether they will or no, which, of course, is impossible. They can regulate the business of the public warehousemen, but cannot compel those wishing to do a private warehouse business to do a public warehouse business and accept everyone's grain.

Bills to place all elevators under the control and inspection of the warehouse commission is meeting with some opposition which they truly merit. It is all right to give the warehouse commission power to inspect the affairs of public elevators, but they have no business in any other's

and should be kicked out the first time they go nosing about a private house.

Bills for abolishing the warehouse commission for making its members elective and fixing the penalty at \$100 for falsely inspecting grain, the last of which is good, have also been introduced. Senator Donnelly wants the state to build an immense storage elevator, beside two others to be built by North and South Dakota at Superior, and the promoters of this wild scheme have gone so far as to get the offer of a site from a land company. They seem anxious that the state's elevator should be without the jurisdiction of its own laws.

A bill which, although vicious, stands a good chance of passing, provides that: "All elevators and warehouses storing and handling grain, and situated on the right of way of any railroad at any station or siding in this state other than at stations designated by law as terminal points, are hereby declared to be public elevators, and shall be under the supervision and subject to the inspection of the railroad and warehouse commission of the state of Minnesota, and shall, for the purpose of this act be known and designated as public country elevators and country warehouses." They can declare the country elevators public or are anything else they desire, it will not alter matters in the least, for it is not in the power of any legislature to compel a private elevator man to conduct a public warehouse business. A senate bill provides for condemnation of elevator sites on railroad right of way. This has been recommended to pass and if enacted may do some good. Another bill in the same line requires railroad companies to construct side tracks and elevator spurs.

The one excellent bill bearing on the grain trade is the outcome of the investigation recently made by the senate committee. The bill seeks to compel better cars and insure protection to grain at terminal points. The grain inspector is required to examine all cars for leaks or broken seals and after inspection to re-seal the cars with a special seal. The railroad companies are required to provide sufficient police protection to guard cars against pilfering in the yards.

If the farmers keep on with their unreasonable legislation they will make it impossible for anyone to conduct a grain or elevator business in the state; they have already made Superior a more desirable point for conducting the business than points within the state.

PROTECTION FOR BRITISH AGRICULTURE.

The startling phenomenon is witnessed of a campaign for protection being inaugurated in free trade England. We have been told again and again that protection was dead for good and all in England, beyond hope of resurrection; and now comes the news that protection for British interests, chiefly agriculture, is likely at once to rise to the dignity of an issue in British politics. As one of the leading agricultural journals puts it: "It is our firm opinion that only will those who live—or rather try to live—on the land go as a body for protection, but that the workers in our home industries will also soon be clamoring for fair treatment. Britain for Britishers, should be the cry of all."

It is the rapid and steady decline of agriculture in Great Britain that has brought protection to the front again, as a shibboleth in rallying the agricultural classes. This decline has for years been so unvarying that a less persevering people than the British would have been discouraged years ago. So far as can be seen, there is not a vestige of chance for improvement, as things are now going; for everything tends to still lower prices for agricultural products in competing countries and lower freight rates from the place of production to Britain. Two-thirds almost of her food supply must be drawn from abroad, and those who are not engaged in agriculture of course demand cheap food and will resist any attempt to better the farmers by increasing the price of food. Altogether, the future of agriculture in Great Britain is not reassuring.

EDITORIAL MENTION

SEND us news of your district bearing on the grain trade.

EVERY important grain center should have a sample bureau.

CONGRESS has adjourned and private enterprise will have another chance to complete the Nicaragua canal.

WE have received a copy of the reports of Minnesota's Chief Grain Inspector and State Weighmasters on grain inspection and weighing.

AN exception to the provision of the bill introduced into the Missouri Legislature requiring track scales at all elevators has been made in favor of houses having hopper scales already installed. Hopper scales are much more reliable.

CLEAN bills of lading are always desirable, but grain shippers will never get them unless they organize as the Kansas grain dealers have recently done, and secure favorable legislation and then follow it up with persistent prosecution.

ONE of the finest calendars received at this office this season is that of the Simpson & Robinson Company. It bears an engraving of the mammoth elevator recently erected at Boston by this company for the Boston & Maine Railroad Company.

AN effort is being made to reduce the salaries of the Illinois Board of Railroad and Warehouse Commissioners. It would be better to increase them than reduce them. Arbiters between the people and corporations should be men whose services cannot be secured for a trifle.

A BILL creating offices of state weighmasters, to be named by the chief grain inspector, who shall weigh all carload receipts has passed the Missouri State House of Representatives. It would be more satisfactory if grain was weighed at every important terminal by the state.

THE Kanneberg Roofing Co. of Canton, Ohio, have issued a neat pamphlet describing and illustrating their metal roofing and siding, coupled with a special announcement of Kanneberg's Patent Folded Lock Seam. They will send samples to interested parties on application.

NOW is the condition of winter wheat of intense interest to our readers. You can exchange information regarding the condition of the growing grain in your district for like information from other readers by sending it to us for publication in our department of "Crop Conditions."

WE have received a copy of the 1893 catalogue of the Jeffrey Manufacturing Co., one of the best and largest ever issued by this company. It is nicely illustrated and will be found a useful book by all machinery users. A copy can be secured by addressing the Jeffrey Manufacturing Co., Columbus, O.

KANSAS grain dealers should profit by their experience with the politicians who tried to inspect grain in Missouri and unitedly oppose any change in the method of appointing grain inspectors in their state. The Governor wants his supply of pap increased and asks that he be given the appointment of all the grain inspectors. One farmer has made bold to oppose this scheme in a communication to the *Kansas Farmer*. We trust that

Kansas grain dealers will be at least equally as bold. Grain inspection is not the special forte of politicians.

HONSTAIN BROS. architects and builders of grain elevators, will remove April 1, from the Berry Block, to 118 Corn Exchange, Minneapolis, where they will be pleased to see old and new friends. They invite parties who contemplate building either storage, transfer or mixing elevators to inspect their plans, and they solicit correspondence from interested parties.

IT will be seen from Mr. Burlingame's letter on another page that Galveston is in the field as a grain exporting point. Those interested expect to export 10,000,000 bushels of Texas and Kansas wheat this year. Galveston, we believe has the only grain elevators on the Gulf outside of New Orleans, and expects to take a good deal of trade from the Crescent City.

A BILL has passed the Arkansas Senate prohibiting the buying, selling, or otherwise dealing in futures in any of the agricultural or animal products of the State. This may interfere with the poor farmer who sells his entire crop to one dealer at a good round price and then when the market advances, report short yield and take the remainder to an adjoining town.

KENTUCKY fire insurance agents have found a new ruse for bleeding the country elevator men. Under the ruse of increased risk on elevators equipped with gas engines they recently attempted to advance the rates. How well they succeeded we have not learned, but they certainly cannot maintain unreasonably high rates very long as other companies will be attracted to the field.

THE bill introduced into the Kansas Legislature to provide for the establishment of only three grades of wheat states that these grades shall be second, third and fourth and that 58 pounds is good enough weight for "second," instead of 59 pounds as now required for No. 2. Prices of grain are governed by the quality of the grain, not by the name legislators may choose to give it.

THE boom in mill building at the head of Lake Superior is being followed by a boom in elevator building. Five or six are now being constructed and contracts for several others will probably be let soon. Sites have been offered by the land company to a Milwaukee gentleman for the erection of two elevators, to North Dakota for the erection of one and to a Minnesota senator for another.

THE large export demand for hay which is still active has been a good thing both for hay producers and handlers. It has also served to open the eyes of many country grain shippers who have heretofore paid no attention to this branch of their trade. The number of shippers that have newly embarked in the baling and shipping of hay during the past eight months is undoubtedly much larger than for any year preceding.

A BILL has been introduced in the Illinois senate by Noonan of Chicago, which prohibits public warehousemen from speculating in grain. A bill of this nature is introduced each session of the state legislature but fails passage on account of lack of support, not on account of opposition. If the Illinois shippers would write to their representative in the legislature requesting them to work for the bill it would be passed in short order.

THE sampling of grain under contract grade at terminal points should be conducted by some organized responsible body. Either state or the commercial exchange should establish a sampling bureau at each point. The track samplers should be held responsible for their work and a portion of each sample taken should be retained by the sampling bureau at least sixty days for reference. Chicago receivers have tried several times in a

half-hearted way to have the Board of Trade establish a sample bureau but without success. They need a stirring up from country shippers on this point.

ANOTHER southern port is preparing to make a bid for a part of our export grain trade. The more competitors the better service will the trade secure, so it is to the interest of the exporters to encourage the new rivals of the old export cities. The latest move made at Charleston is to organize the Charleston Grain Exporting Co. Rail carriers have reduced the rates on grain and grain products to South Atlantic ports, and a strenuous effort will be made to divert export shipments via Charleston.

THE stocks of grain in Chicago public elevators and afloat on Saturday, March 11, aggregated 30,740,000 bushels of wheat, corn, oats and barley. Stocks in private houses, and flaxseed, swell the enormous total to 35,500,000 bushels. Very little space in the public elevators is now available. In some instances the elevator men have had to refuse corn, which had been sold to go to store. An outlet for the crowded elevators is found in the vessels lying in the river, these preventing serious congestion.

THE demurrage suit of the steamer William Edwards against the New York Central Railroad for damages on account of the elevator blockade in the fall of 1891 at Buffalo was compromised recently. The railroad in this case had unloaded its own boats ahead of their turn and feared an adverse decision of the court on that account. Although satisfactory to the owners of the Edwards the compromise leaves the demurrage question unsettled. If rail carriers had not tried to freeze out the Erie canal no blockade and delay would have occurred.

THE bill introduced in the Minnesota Legislature, providing that the Minnesota inspectors shall grade no grain outside of the state, is a blow at the elevator interests of West Superior, Wis., which is the only point where inspectors go out of the state. Some of the elevators at West Superior are owned by Minnesota capital, are operated by men who have their headquarters at Minneapolis and Duluth, Minn., are recognized as "regular" houses by the Board of Trade of Duluth, and receive much of the grain grown in Minnesota. That the Minnesota Legislature should harass what is to all intents and purposes a Minnesota enterprise, is incomprehensible.

A NEW YORK druggist proposes to carry grain from the West to the seaboard by a continuous moving series of buckets on suspended chains. The chain would be propelled by stationary engines at various points along the route. By this means he claims 25,000 bushels could be delivered every 24 hours. This is equal to the great pipe line which an enterprising lady of the same city was recently reported to have contracted for, with the intention of monopolizing the grain carrying trade of the country. These two schemes should be put in a glass case together with Governor Flower's scheme to propel canal boats through the Erie swamps by electricity and exhibited in the New York building at the World's Fair.

A BOARD of trade has been organized at Argentine, Kan., and as soon as the charter is issued by the secretary of state, will take charge of the grain inspection at that point which is now managed by the Board of Trade of Kansas City, Kan. The object is to secure for Argentine the fees and prestige that the inspection brings to Kansas City. No pretense of benefitting the grain trade in any way is assumed. The greater the number of inspection departments, the greater will be the confusion and less will be the confidence dealers have in any of them. With three and possibly four independent set of grain inspectors at Kansas City, the trade at that point will surely be in a muddle. Unless uniformity

of grades is maintained it will compel sale by sample.

NEGOTIATIONS between the state department have resulted in a new "order in council" in regard to tolls on Canadian canals for the present year. The effect is to abolish the rebate on the tolls and the regulations against the trans-shipped goods thereby removing all the discrimination of which the government of the United States has so long complained. In accordance with this diplomatic arrangement the President issued a proclamation revoking the tolls levied on Canadian vessels and cargoes in the Sault Ste. Marie Canal.

HAY rates have received some attention from Iowa railroads of late. They wanted to increase the rate 25 per cent by changing hay to a different class in their freight schedule. Carriers claim that on account of bulk cars could only be loaded to half capacity. The truth is, the desire to advance the rate is prompted only by their love of their old guiding motto, "Make the rate whatever the traffic will stand." The export demand for hay has pushed prices up a little and they wish to do likewise with their rates for carrying it.

THE year 1892 was a red letter year for our grain trade with Germany. From fourth place in 1890 the United States rose to first place in 1892, the amount of wheat purchased from the United States rising from 1,902,775 bushels in 1890 to 23,000,065,795 bushels last year. The importations from the United States in 1892 were nearly half of the whole amount imported, 46,509,719 bushels. The importations of rye from the United States increased from 765,833 bushels in 1890 to 4,932,325 bushels in 1892. Russia's contribution of that cereal to Germany, owing to failure of crops, decreased from 27,000,000 bushels in 1890 to 4,500,000 bushels in 1892.

A GRAIN inspection bill passed by the Missouri Senate provides that the governor shall appoint the chief inspector who shall appoint his own deputies. The railroad and warehouse commission is to have nothing whatever to do with the inspection department. Good results may be expected from this arrangement, as it enables the responsible head of the department to compel obedience to his orders. By discharging incompetents and rewarding with promotion his faithful subordinates the chief inspector can raise the department to a high standard of efficiency. The bill contains several amendments suggested by the Kansas City Commercial Exchange, and will probably pass the house unchanged.

THE fifth annual report of the Winnipeg Grain and Produce Exchange shows the grain business in Western Canada to be prospering and growing. In 1891 the total grain elevator storage capacity at Port Arthur, Ft. William and points west of Lake Superior was 7,628,000 bushels, the next year it had increased to 10,366,800 bushels and now it is 11,467,100 bushels. The number of elevators and grain warehouses is about 350. It is estimated that 14,453,835 bushels of the last crop of wheat will be exported, which is just about 500,000 bushels more than has been exported of any preceding crop. The present year gives promise of even greater increase in elevator capacity than last year.

DEALS in grass seeds on the Chicago Board of Trade have been made on both the cental and the bushel system. Having had the opportunity to compare the two in practice the traders are convinced of the superiority of the cental system, and when a number of future contracts which are now open, have been closed those trading in bushels will deal in centals. When the seed traders have used the system for a time they may oppose the use of any but the cental system in all branches of the grain trade. Its use greatly simplifies all transactions, does away with complex reductions

and grain tables, and prevents many errors. Every dealer should in justice to himself champion the cause of the cental system.

A BILL prohibiting dockage for dirt has been passed by the legislature of South Dakota, and North Dakota may do likewise. If the farmers hope to get as much for their wheat after the dockage custom is abolished as before, they are sadly mistaken. Grain buyers in the Dakotas have been paying the top price for all grain, and by the dockage custom have been enabled to saddle the loss of dirt and screenings on each individual farmer who pursued slovenly methods. But now the buyer to protect himself against dirty grain must pay a low price for all grain, clean and dirty alike, and the careful farmer will suffer. None of the many laws intended to give the granger the advantage over the grain buyer have ever been successful, and this last one will, like the others, prove a boomerang.

A NEW grain weighing device has just been put into operation in the establishment of the B. F. Isenberg Milling Co. at Huntingdon, Pa. The device is essentially as follows: A modern scale has a double hopper suspended in the center, which, as soon as filled to an exact balance, closes an electric circuit, tilts the hopper, and immediately the other end commences filling. When the hopper tilts, a second electric current registers on an electric tally in the office. The machine is made by the Automatic and Electric Scale Co. of Huntingdon, Pa., which has lately been incorporated with a capital of \$200,000. B. F. Isenberg, a widely known miller is the president and general manager of the company.

A DISPATCH from Buffalo says: "There is prospect of a railroad rate war in the grain-carrying trade as soon as it begins coming down the lakes. Even now the boats bound east from Buffalo are said to be open for a dicker, which, with so little grain to catch as at present, is significant. A local shipper says that the 13 cent rate by rail has not been held up at all and does not think it has been over 10 cents all winter. The rate depends entirely upon the quantity shipped. He predicts that the grain rate to New York will be down to 5 cents or less before a canal boat leaves here this spring. This makes it look as if the canal would not have a very easy thing of it after all, in spite of the supposition that there is going to be grain enough for everybody. Were the roads inclined to let well enough alone there would be business enough for all, but they seem to prefer to carry it at a loss, as usual, rather than see it go by canal." Shippers are not disposed to quarrel with this state of affairs, though it must be confessed that it is rather tough on the canal men.

THE WORLD'S CEREAL PRODUCTION.

The Department of Agriculture has performed a service to the grain-handling public in collating the statistics of cereal production throughout the world. Its value arises not only from the fact that it embraces statistics from ninety-two countries and translations from twenty different languages, but in affording the means of disabusing the public mind of some wide-spread and palpable errors.

Chief and foremost of these errors is the common belief that the United States controls or can control the cereal markets of the world. This compilation of statistics, which by the way, includes figures from out-of-the-way places commonly overlooked, shows that the world's production of wheat in a period of ten years averages 2,280,856,715 bushels per annum. This shows that the crop of the world has been uniformly underestimated. The United States' average production is less than 20 per cent. of the whole amount. These two facts taken together will explain why it is that wheat prices do not always respond to a short crop in this country. The total production has been uniformly placed too low, and it is hardly to be expected that the United States with less

than a fifth of the total production can dictate prices.

Another fact brought out by these figures is that the world's crops of wheat, corn and oats are almost the same in volume. In ten years the average annual production of corn has been about 2,300,000,000 bushels and that of oats, 2,328,000,000, against the 2,280,000,000 bushels of wheat mentioned above. Of the corn crop the United States produces nearly 80 per cent. Europe produces more rye than wheat, a fact upon which this journal has frequently commented, and which has no little bearing on the prices of wheat, according as the rye crop is large or short in Europe. In the consumption of wheat as food, France leads with a per capita consumption of 8.5 bushels. Canada comes next with 7.3 bushels; Great Britain, 6 bushels and the United States, 4.6 bushels. The United States easily leads in the per capita production of cereals.

HAY AT CHICAGO.

M. M. Freeman & Co. report that the receipts of hay at Chicago during the week ending March 11 were 691 tons, shipments 62 tons.

PRAIRIE.—Arrivals small. Market firm. Good upland specially in request. Choice Iowa Upland, \$9½@10½; good Iowa Upland, \$8@9; good Illinois or Indiana Prairie, \$6½@7½; Packing Hay, \$5½@6.

TIMOTHY.—No. 1 Hay firm, and other grades selling well. No. 1, \$11½@12; No. 2, \$9½@10½; mixed, \$8½@9½.

STRAW.—Firm and in active demand. Rye, \$8½@9; oat and wheat, \$6@7.

Market well cleared up and in good condition. Arrivals the past week were much below the average, and all indications are that favorable market will continue.

EXPORTS OF BREADSTUFFS.

S. G. Brock, chief of the bureau of statistics, reports that breadstuffs, valued at \$12,982,047, were exported in February, against \$23,850,996 in the preceding February. The value of breadstuffs exported in January and February was \$26,548,115, against \$54,098,277 in the corresponding two months last year; and during the eight months ending with February breadstuffs, valued at \$131,173,693, were exported, against \$210,087,470 during the corresponding period of 1891-92.

The exports in February included 8,150,122 bushels of wheat, valued at \$6,414,548; 3,319,074 bushels of corn, valued at \$1,737,520; 23,383 bushels of oats, valued at \$11,217; 101,030 bushels of rye, valued at \$63,810; 209,055 bushels of barley, valued at \$105,282, and 1,025,627 barrels of wheat flour, valued at \$4,593,948; compared with 8,826,155 bushels of wheat, valued at \$9,060,311; 12,728,990 bushels of corn, valued at \$6,632,090; 268,460 bushels of oats, valued at \$107,897; 787,516 bushels of rye, valued at \$799,011; 156,993 bushels of barley, valued at \$90,249, and 1,413,751 barrels of wheat flour, valued at \$7,026,886, in the preceding February.

For the eight months ending with February we exported 82,415,049 bushels of wheat, valued at \$66,677,874; 22,189,728 bushels of corn, valued at \$11,873,115; 726,123 bushels of oats, valued at \$294,631; 1,106,200 bushels of rye, valued at \$762,819; 1,550,518 bushels of barley, valued at \$767,469, and 10,964,961 barrels of wheat flour, valued at \$50,149,794; in comparison with 116,519,342 bushels of wheat, valued at \$121,778,621; 45,076,838 bushels of corn, valued at \$25,788,187; 6,758,409 bushels of oats, valued at \$2,795,644; 9,495,408 bushels of rye, valued at \$9,120,421; 2,169,046 bushels of barley, valued at \$1,399,076, and 9,573,182 barrels of wheat flour, valued at \$48,133,857, for the corresponding period of 1891-92.

Cotton seed, amounting to 638,216 pounds was exported in the month of January, against 1,240,057 pounds in the preceding January; and in the seven months ending with January we exported 3,150,092 pounds, valued at \$20,400; against 6,715,136 pounds, valued at \$51,845, in the corresponding period of 1891-92.

To British North America we exported last January 64,011 bushels of corn, against 308,288 bushels in the preceding January; and for the seven months ending last January we exported to that country 2,213,537 bushels of corn; against 2,297,931 bushels for the corresponding seven months of 1891-92.

ELEVATOR AND GRAIN NEWS

A brewery is to be built at Milwaukee.

Aberdeen, S. D., is to have a tow mill.

Fernandina, Fla., is to have a rice mill.

A tow mill is talked of at Alden, Minn.

An elevator is to be built at Attica, Mich.

A rice mill is talked of at Galveston, Tex.

A grain elevator is to be built at Savoy, Ill.

A grain elevator is talked of at Potter, Kan.

A new elevator is talked of at Richwood, O.

Estelline, S. D., is to have a flax fiber factory.

Pierron, Ill., is to have an elevator costing \$8,000.

A starch factory is talked of at Spring Vale, Minn.

Roblin & Co. will build an elevator at Austin, Man.

A farmers' elevator is to be built at Stockton, Minn.

Kansas men will build an elevator at Terral, Ind. Ter.

E. J. Ely is about to build an elevator at Mineral, Ill.

M. A. Wichler, hay dealer at Weitlemore, Ia., has sold out.

William Lindgren is building a brewery at New Castle, Colo.

Joseph Raspiller is building a brewery at West Berkeley, Cal.

Evaus & Hare, grain dealers at Murdock, Neb., have sold out.

The new grain elevator at Guilford, Me., is now in full operation.

The Pewamo Elevator Company of Pewamo, Mich., has sold out.

A. B. Curtin & Co. of Great Falls, Mont., are building a warehouse.

Culbertson & Scales will build a cotton seed oil mill at Temple, Tex.

A grain elevator will be built at Mellette, S. D., by Henry Braun.

The farmers are rapidly completing their new elevator at Delano, Minn.

F. I. Booth, dealer in grain and feed at Richmond, Tex., has sold out.

A 500,000-bushel elevator is being built at Chicago by William Dickinson.

Steam shovels are to be placed in the grain elevator at Port William, Ont.

The City Brewing Company of Jeffersonville, Ind., is building a brewery.

Palon & Watson, the elevator men of Dundas, Minn., will build a flour mill.

Work on the independent elevator at Magnolia, Minn., will begin in the spring.

George C. Mortland, dealer in grain and hay at St. Louis, Mo., has sold out.

Robillard & Wolfe, grain dealers at Montreal, Que., have dissolved partnership.

G. A. White of Shepherdstown, W. Va., has gone into the grain and coal business.

Haskett & Carey have bought the Gilchrist grain warehouse at Fredericksburg, Ia.

G. Maltby Leach, dealer in grain and coal at New Milford, Conn., has sold out.

C. F. McCarty, dealer in grain and meat at Jefferson, Ia., has sold his meat market.

The Farmers' Elevator & Milling Company has been incorporated at Kenmay, Man.

S. C. Smucker & Co., grain dealers at Timberville, Va., have dissolved partnership.

A commodious warehouse will be built at Grand Meadow, Minn., by the farmers.

A grain elevator is to be built at Brunswick, Md., on a site bought of William L. Gross.

The Calumet Brewing Company has been incorporated at Chicago with \$300,000 capital.

The Hanover Distilling Co. has been incorporated at Peoria, Ill., with \$100,000 capital.

J. P. Jenson of Northwood, N. D., will go into the grain business at Albert Lea, Minn.

The elevator at East Winona, Minn., was recently sold by the Green Bay Railroad Company to William Miller, who will demolish the building, which only cumbered the

ground now that the channels of trade have been diverted.

The E. Porter Brewing Company has been incorporated at Joliet, Ill., with \$175,000 capital.

The new elevator at Otterbein, Ind., has been placed in operation. Four men are employed.

If anything of interest to the grain trade occurs in your part of the country let us know of it.

W. C. Moore & Co., grain dealers at Bladen & Swanton, Neb., have dissolved partnership.

Johnson & Lane, grain dealers at Hubbard, Ia., have been succeeded by Johnson, Lane & Co.

Washington & French, commission grain dealers of St. Louis, Mo., have dissolved partnership.

The Washington Distilling Company has been incorporated at Chicago with \$15,000 capital.

The "Farmers' Elevator" at Brandon, Minn., in one day recently took in 115 loads of wheat.

Murray & Barnes, dealers in grain and farm machinery at Elliott, Ia., have dissolved partnership.

Cargill Bros. will build a cleaning elevator in addition to their new house at West Superior, Wis.

A 20,000-bushel grain elevator and a flour mill will be built at Saginaw, Mich., by William Cullum.

The roof has been placed on the new elevator of the Royal Milling Company at Great Falls, Mont.

The Dew Drop Distillery Company has been incorporated at Louisville, Ky., with \$50,000 capital.

The elevator at Coburg, Ia., is being overhauled from top to bottom. A new boiler is being put in.

A distillery costing \$30,000 will be built at Baltimore, Md., by Cahn, Belt & Co., and five other firms.

Hunker Bros., lumber dealers at West Point, Neb., are organizing a company to build a grain elevator.

The Georgia Mills and Elevator Company has been incorporated at Macon, Ga., with \$200,000 capital.

Daly & Flynn, dealers in grain, hay, coal and wood at San Francisco, Cal., have dissolved partnership.

A co-operative elevator and mill is talked of at Mapleton, Minn., by the farmers alliance of the county.

C. G. Jones of Oklahoma City, Okla. Ter., will build a 65,000-bushel elevator in connection with his mill.

Goodlander & Co., dealers in grain, lumber and hardware at Bronson, Kan., have dissolved partnership.

W. H. Terwilliger, dealer in grain and farm machinery at Dwight, Neb., has been succeeded by Cook & Co.

John Rockney has, it is said, withdrawn from the Hodges & Hyde Grain Company at Lakefield, Minn.

G. W. Lerz & Co., dealers in grain and feed at Newport News, Va., have been succeeded by E. C. Lenz.

The elevator at Rogersville, Mich., has been bought by the Genesee County Co-operative Creamery Company.

Improvements are being made in the elevator of the North Dakota Elevator Company at Wheatland, N. D.

A cotton seed oil mill is being built at Little Rock, Ark., by Swift & Co. and Nelson Morris & Co., jointly.

Kipp Bros. & Co., dealers in grain, lumber, coal and hardware at Elliott, Ia., have sold their lumber business.

The John McPhail Grain Company of Mounds, Ill., has recently placed some new machinery in its elevator.

Belle Plaine, Minn., has prepared a long petition against the bill for state elevators at Duluth for farmers' use.

The Canadian Pacific Railway Company, it is said, contemplates building another elevator at Fort William, Ont.

An elevator will be built at Prince Albert, Sask., by the Hudson's Bay Company, in connection with its flour mill.

Nelson Morris & Co. and Swift & Co. of Chicago are about to build cotton seed oil mills at Waco and Houston, Tex.

O. W. Mosher & Co., grain dealers at New Richmond, Wis., have been succeeded by the Northern Grain Company.

The R. E. Jones Company, dealing in grain at Wabasha, Minn., has increased its capital stock from \$10,000 to \$25,000.

The Farmers' Co-operative Shipping Association of Preston, Minn., will increase its facilities by building an elevator.

Plans have been drawn for a large new elevator at Chicago for the Atchison, Topeka & Santa Fe Railroad Company.

The "Central Elevator" at Minneapolis, Minn., containing 250,000 bushels of wheat, has just been made "regular."

Marston & Larson of Lake Crystal, Minn., are about to rebuild their elevator, which was burned last month. They have sold the pile of half-burned grain to Gregg & Co. of St. Paul for \$1,565, just as it lay. It consisted of

6 000 to 7,000 bushels of wheat and 200 bushels of flax seed.

Mr. Donnell, whose elevator at Stanton, Ia., was burned some time ago, is about to build grain bins near the old site.

M. B. Sheffield of Faribault and Wacott, Minn., has his new 50,000-bushel elevator at Wacott well on the way to completion.

Freeman, Barber & Hobart, elevator men and dealers in grain and coal at Penn Yan, N. Y., have dissolved partnership.

Wegener & Ripley, dealers in grain and farm machinery at Page, Kan., have been succeeded by Wegener & Caywood.

Oliver & Coliver, dealers in grain, hardware and farm machinery at Tina, Minn., have been succeeded by Edmonds & Co.

G. W. Van Dusen & Co. of Minneapolis, will rebuild their elevator at Redwood Falls, Minn., which was recently burned.

Newman, Cable & Co., dealers in grain and farm machinery at Hubbard, Ia., have been succeeded by Johnson, Lane & Co.

The Atchison, Topeka & Santa Fe Railroad Company will build an immense grain elevator at Argentine, Kan., near Kansas City.

The Northern Pacific Elevator Company will, it is said, build an elevator at Buffalo, Minn., to replace the one destroyed by fire.

Johnson & Freeman, dealers in grain and lumber and proprietors of a general store at Emmetsburg, Ia., have dissolved partnership.

G. Kerndt & Bros., grain dealers at Lansing, Ia., have been succeeded by a company of the same name recently incorporated by them.

R. E. Pratt & Co.'s new elevator at Chicago has been completed at a cost of \$60,000. The building is 66x100 feet and 113 feet high.

Christian & Co., dealers in grain and guano at Philadelphia, Pa., have been succeeded by Wilson H. Ebert, under the old firm name.

Jim Hill, the magnate of the Great Northern Railroad, proposes to extend a branch line into the Palouse wheat country of Washington.

J. Overholt, dealer in grain and lumber at Assumption, Ill., made an assignment March 6 to J. W. Craig. Liabilities \$30,000; assets \$40,000.

So crowded are the elevators at St. Louis that rebates of $\frac{1}{2}$ cent on storage has been offered shippers to induce them to order the grain out.

All the machinery of the new elevator built at West Superior, Wis., by the Minkota Mill Company is now in place and wheat is being received.

A 15,000-bushel elevator will be built at Lewiston, Minn., by the farmers in the vicinity, who have already raised over \$3,000 for the purpose.

The new elevator which Seeley, Son & Co. of Fremont, Neb., have built for the Nye & Schneider Company at that place was started February 21.

The Farmers' Mutual Elevator Association of Ong, Neb., has awarded the contract for building an elevator to Seeley, Son & Co. of Fremont, Neb.

For stealing grain from cars in the Ft. Scott Railroad yards at Kansas City, Mo., three lads aged 13 to 16 years were recently given 10 and 30 days in jail.

A controlling interest in the stock of the Sawyer elevator system has been sold to the Canadian Pacific Railroad Company, say advices from Duluth, Minn.

The cleaning machinery which was installed at the big elevator of the Canadian Pacific Railway at Port Arthur, Ont., a year ago, has been very satisfactory.

Frank Kaucher, the grain elevator architect of St. Joseph, Mo., has recently completed a 150,000-bushel house for A. C. Davis & Co. at Topeka, Kan.

I. L. Patten, the grain dealer of Kellogg, Ia., who, with his brother J. L. Patten, has been in business there for many years, has a 200,000 bushel elevator.

Allen Bros., proprietors of the tow mill at Luverne, Minn., employ seven men and turn out five tons of tow, valued at from \$12 to \$24 per ton, every day.

The farmers of Hillsdale and Warren held their second meeting at Stockton, Minn., March 6, to consider the formation of a co-operative elevator company.

Brooks Bros. have recently placed in their elevator at Milton, N. D., a Witte Gasoline Engine, made by the Witte Gas Engine Company of Kansas City, Mo.

The elevators at Minneska, Minn., being full of grain, the farmers recently were unable to take advantage of the good condition of the roads to haul their grain.

The Shannon Elevator Company has been incorporated at Shannon, Ill. Capital stock, \$5,000; incorporators, G. R. Hackett, George C. Byers and Amos Hardy.

The Heidenreich Company of Chicago has established a branch office at Duluth, Minn., where a block of land on the water front has been purchased for a construction

yard. This new yard will increase their facilities for constructing elevators, bridges and railways in the Northwest.

A farmers' elevator company is being organized at Goodhue, Minn. They believe they can gain much by handling their own grain through their own house.

The "Maple Leaf" railroad contemplates building two elevators at Kansas City, Kan., one of 100,000 bushels' capacity, and the other of 150,000 bushels' capacity.

Ersline, Minn., is to have an elevator or flat house. C. C. Ness and Hans Noer are soliciting subscriptions to the stock of the proposed farmers' elevator company.

A cotton seed oil mill to cost \$100,000 will be built at Texarkana, Tex., by T. R. Chaney of New York; T. H. Kline of Galveston, and P. J. Mannig of Texarkana.

A number of grain exporters in Ontario are, it is said, buying Canadian barley to hold until the present high American import tax on that grain has been abolished.

The Canadian Marine Association has urged the Dominion Government to donate a site at Kingston, Ont., for a public grain elevator of 500,000 bushels' capacity.

J. M. Wilson of Conway Springs, Kan., has recently ordered of the Barnard & Leas Manufacturing Company of Moline, Ill., one No. 5 Barnard Warehouse Separator.

James E. Back, the bookkeeper for J. A. Dunning & Co., grain dealers, who mysteriously disappeared last month, has, it is alleged, taken \$300 of the firm's money.

J. N. Babcock and D. C. Yoder of Hawpatch are building an elevator at La Grange, Ind., of 40,000 bushels' capacity. About 60,000 feet of lumber will be used.

Morgan & Dye, commission dealers in grain at Cincinnati, O., have failed, and various ugly rumors are afloat concerning their business methods. Dye has decamped.

One No. 3 Barnard Warehouse Separator has recently been purchased by D. H. Houston, Hunter, N. D., of the Barnard & Leas Manufacturing Company of Moline, Ill.

I. S. Spragne & Co. of Providence, R. I., have recently bought one No. 3 Barnard Elevator Separator of the Barnard & Leas Manufacturing Company of Moline, Ill.

E. W. C. Edwards of Hopkinsville, Ky., has recently bought one Little Victor Corn Sheller and Cleaner of the Barnard & Leas Manufacturing Company of Moline, Ill.

The inspected receipts of wheat at Winnipeg, Man., for the four weeks ending February 25 numbered 401 cars, against 1,472 cars in the corresponding weeks last year.

Shondy Bros. & Co., grain dealers at Seattle, Wash., have dissolved partnership, John A. Shondy continuing and H. Stevens and F. S. Sylvester retiring from the business.

Eureka, S. D., ships during the busy season from 75 to 100 carloads per day of wheat, besides barley, flax, etc. Eureka is one of the greatest farmers' markets in the world.

I. Z. Smith of Venice, Ill., may furnish an acre of ground on the Wabash Railroad for the large elevator which is to be built at North Venice, near East St. Louis, Ill.

The Barnard & Leas Manufacturing Company of Moline, Ill., has recently sold one Little Victor Corn Sheller and Cleaner to the Washington Milling Company of Eau Claire, Wis.

C. A. Stowell of Long Prairie, Minn., has just completed an addition to his elevator, 12x43 feet. He recently placed in his elevator a brush, smutter and elevator combined.

Schneider Bros. & Mader of Winneconne, Wis., have recently bought one Little Victor Corn Sheller and Cleaner of the Barnard & Leas Manufacturing Company of Moline, Ill.

Sealey, Son & Co. of Fremont, Neb., architects and builders of grain elevators, have just closed a contract with J. H. Steinmeyer of De Witt, Neb., for an elevator at Clatonia, Neb.

T. H. Peavey, the elevator man, is said to have changed his short line of 10,000,000 bushels of wheat over from May to July, fearing manipulation of the market by Chicago speculators.

The Farmers' Elevator Company of St. Louis, Mo., of which J. F. Birch is secretary, will build a 220,000-bushel annex to their 600,000 bushel house next May as provided for in the original plan.

The Farmers' Mutual Elevator Company has been incorporated at Baldwin, Ill. Capital stock \$2,000; incorporators, J. M. Beattie, Peter Hackman, J. B. Bratney, Samuel Wiley and S. H. Mann.

Threshing machine owners of Northwestern Iowa and Southwestern Minnesota met at Sheldon, Ia., February, to form a combination and fix prices, and thus end the competition that has existed for years.

The Buffalo Elevator Company of Buffalo, Minn., has started its new house, with William Korb as buyer. The specifications in the contract did not name the kind of lumber to be used and the only guarantee the company had was a verbal contract. It is now alleged that the re-

quired quality was not used. John O'Leary, secretary, has been trying to effect a settlement of the difference with the builder.

James Pollock, dealer in grain and wool at Wadsworth, Ill., made an assignment recently to A. P. Rumsey of Lake Forest. Liabilities \$12,000; assets \$45,000. He had elevators at Wadsworth and at Manning, Ia.

A company is being organized to build an elevator at Harrisburg, S. D., with C. B. Brown, president; E. Moscrip, treasurer, and J. Troyer, treasurer. The farmers of the vicinity are taking stock in the enterprise.

The Farmers', Merchants' & Mechanics' Business Association has been incorporated at Verona, Neb., to build a grain elevator and do a general commission business. Capital stock \$10,000, divided into shares of \$25.

A steam pipe in the engine room of the elevator at Parker, S. D., burst recently and filled the room with steam. Engineer Sheldon made his way to the boiler and opened the escape valve, thus preventing damage.

The Barlett & Reed Company of Minneapolis, Minn., has finished the foundations for the new "Belt Line" and "Terminal" elevators, for which it has the contracts, and the superstructures will soon arise.

Rumor has it that temporary cribs are to be built at Chicago in which to store low grades of grain now in elevators to make room for contract grades of wheat which is expected to be shipped from the Northwest.

State Senator Sevaton of Minnesota will build a handling and a storage house at West Duluth. Mr. Sevaton will use the two houses as a terminal for the country elevators he controls in the southwestern part of the state.

Hundreds of tons of hay have been sold the past season by the farmers in Noble County, Minn., in the vicinity of Worthington. The receipts of hay at Worthington the past winter have been greater than ever before.

The Union Elevator Company of Minneapolis, Minn., is defendant in a suit for \$15,000 brought by Carl Nelson on account of personal injuries received while cooping a freight car. The car was pushed against his leg, crushing it.

Three dollars a pound was paid for oats by Henry Kleinhans of La Crosse, Wis., recently. The oats known as "Columbia," were imported from Holland for seed. The grains grow in clusters from branches at the top of the stem.

Some years ago the farmers near La Rue, O., built an elevator. Assessments were levied upon the stockholders with disgusting frequency, and, as no dividends were ever declared, the farmers, one by one, have sold out their stock.

Fritz Straughn & Co. have entered the grain trade of Kansas with headquarters at Wellington, where they will handle their grain through the "Hunter Elevator." Mr. Straughn was formerly connected with Cockrell Bros. of Dallas, Tex.

D. H. Currey & Co. have been incorporated at Mason City, Ill., to build elevators and mills and deal in grain, coal, lumber, flour and merchandise. Capital stock, \$50,000; incorporators, D. H. Currey, W. G. Huse and Bloom Ramsey.

The Cissna Park Farmers' Elevator Company has been incorporated at Cissna Park, Ill. Capital stock \$10,000; incorporators, Friedrich Kester, Henson Judy, William S-ggelbruch, Julius Kiezmann, Henry Hasselbring, John Kireher and F. H. Luecke.

The Superior Belt Line Elevator Company has been incorporated at Superior, Wis. Capital stock, \$500,000; incorporators, W. W. Cargill, W. S. Cargill and E. J. Tull of La Crosse, William Thompson of Superior and S. D. Cargill of Minneapolis, Minn.

Balfour, Guthrie & Co., grain dealers of San Francisco, Cal., have arranged with the Seattle Terminal Railway & Elevator Company to operate the grain elevator at Seattle, Wash., as a terminal export elevator for their wheat business along the Great Northern Road in the Big Bend country.

Gas engines were first introduced into the grain elevators of North Dakota by the Minneapolis & Northern Elevator Company; and during the past year nearly all the companies on the same line of railroad have been putting gas engines in their elevators, in place of horse or steam power.

The suit of Charles E. Fox against the Johnson-Brinkman Commission Company of Kansas City, Mo., for \$1,000 damages on account of personal injuries received in their elevator at Rosedale, Kan., was recently dismissed by the court because plaintiff admitted that he knew the dangers of operating a power shovel at the time he engaged with defendants. Knowing the hazardous nature of his occupation, he himself was responsible for any injuries received.

Charges for switching at Duluth, Minn., and Superior, Wis., have been revised by the Northern Pacific Railroad Company. Grain from points on that road consigned to commission men in Superior or West Superior is delivered free if disposed of within 24 hours; if consigned to commission men in Duluth the charge is \$3 per ear. The charge is \$1.50 per car on grain delivered to the Northern Pacific at South Superior; or from the Omaha line; or from elevators in West Superior, deliv-

ered to the Northern Pacific by the Omaha line at old Superior or by the Eastern Minnesota line at South Superior. By having their grain consigned to Superior the Duluth commission men secure free delivery.

Hubbard & Palmer, grain dealers of Sioux Falls, S. D., suffered some loss and were considerably inconvenienced by the dropping down of a floor in one of their warehouse houses. The house contained 5,000 bushels of wheat which was precipitated into the basement. None of the wheat was lost or damaged.

Gas engines in grain elevators was one of the subjects considered at a recent meeting of insurance agents in Louisville, Ky. When installed up to requirements an advance of 25 per cent. will be required, and when under the standard the advance will be from 50 to 100 per cent. This is merely a ruse for bleeding country elevator men and is not justifiable.

Seed grain is now carried free of charge by the Canadian Pacific and Manitoba & Northwestern railroad companies, between Whitemouth and Calgary and branch lines in Manitoba and the Northwest Territories. All grain offered for shipment as seed is first examined by the shipping agent to determine if it comes up to the official sample prepared by D. Horn, Dominion Government Grain Inspector at Winnipeg.

The expenses of running a large elevator are heavy, according to Mr. J. M. Brown, president of the Galveston Wharf Company of Galveston, Tex. He says it costs about \$100 a day to operate their large elevator. Thirty laborers are employed, besides the salaried employees who must be paid whether the elevator runs or stands idle. He also says that it does not pay to elevate ten, twenty or thirty carloads a day, by any means.

An elevator with warehouse adjoining will be built on the water front at Duluth, Minn., by Eckert, Williams & Co., the wholesale commission men, whose lease of present quarters expires May 1. On that date they expect to be settled in the new establishment where they will enjoy excellent facilities for handling corn, oats, rye, barley and millstuffs, feed and hay. The building is to be 75x130 feet, and is to have electric motive power. The cost is estimated at \$20,000. The members of the firm are O. N. Eckert, J. C. Williams and Jas. McClenaghan.

The Farmers' Terminal Warehouse Company of Eastern Washington has obtained subscriptions for \$60,000 of the \$150,000 capital stock. The committee composed of J. W. Bicknell, L. F. Smith and R. C. McCroskey has not decided whether to build a sack warehouse or an elevator, but as it is at present more economical for the farmer to sack his grain at the threshing than to handle it in bulk the proposed building will probably be a warehouse. Everett, Wash., has made the best offer to the farmers so far. The town will donate a site and build a warehouse for the farmers if they will make it their terminal.

Edward A. Bigelow, commission grain dealer at Chicago, has lost in the suit which John E. Phillips, receiver of the National Bank at Sumter, S. C., brought against him for \$12,396.75 which he was accused of having used knowing that it had been obtained by fraud. Judge Gresham found that Charles E. Bartlett, cashier of the bank, converted to his own use \$12,396.75 of funds in buying and selling grain on the Chicago Board of Trade through Bigelow. That defendant by order of Bartlett deposited in the Mercantile National Bank of New York sums amounting to \$8,000. Credit was allowed defendant for this amount, and plaintiff was given judgment for \$4,397.75 and \$1,566.22 interest. The plaintiff will take the case to the Court of Appeals.

OUR CARD BASKET

We have received calls from the following gentlemen prominently connected with the grain and elevator interests, during the month:

Mr. Gilbert, representing W. W. Gilbert of Danforth, Ill.

J. Silas Leas of Barnard & Leas Manufacturing Company, Moline, Ill.

Geo. E. Alt, representing the Albert Dickinson Company, Chicago, Ill.

B. F. Ryer, representing Huntley, Cranston & Hammond, Silver Creek, N. Y.

WHEAT TURNING TO RYE.

One of the old conundrums was, as to whether wheat would turn to rye. It was finally determined that facts were against the change. J. L. Powers, an Indiana farmer, insists upon personal knowledge of instance in Delaware county, Ind., and attested by many of the best citizens, in which wheat turned to rye. His story is about 8 years ago, a farmer, finding his wheat running out, sent to another state and got pure seed of the Martin Amber variety. He sowed it four years in succession, the first year getting 28 bushels per acre, the second 26 and the third 24. It was such fine grain that some of it was sold for seed. The fourth year it was 25 bushels, but it was not wheat. It was a beautiful white rye. No rye had ever been sowed on these lands. The statement is evidently credited and a variety of attempts at explanation are had. Whatever the facts, nature is not likely to desert her established rule, that like produces like.

PRESS COMMENT.

BORNE OUT BY AFTER EVENTS.

There is no doubt that in the main the American statistician's figures have been well borne out by after events, and his March report, after the foregoing explanation, will now have more weight in all quarters where statistics are regarded.—*Corn Trade News, Liverpool.*

PREMIUM ON CORN FED TO HOGS.

There has been this season an extraordinary premium realized on corn fed to hogs over the marketable value of this grain. This has failed to stimulate the price of corn in commercial channels in any essential degree, although it has assisted in maintaining values. It has failed to cause the retention of hogs on the farm until the point of advantageous feeding had ended. The season is one of irreconcilable conditions and inconsistencies.—*Cincinnati Price Current.*

DEATH OF ANTI-OPTION BILL.

The anti-option bill is dead for the present at least. It has hung over the markets like a wet blanket for a year and now it looks as though it would never be heard from again. So long as there was a shadow of its passing the House speculators were indisposed to take bold of any of the markets with their accustomed freedom, but now that it is out of the way it is expected that the traders will breathe more freely and will, in time, take bold of the grain markets and make them two sided affairs.—*Chicago Inter Ocean.*

INTERSTATE COMMERCE LAW A FAILURE.

Each successive legal decision relating to the Interstate Commerce Law breaks an additional piece off that structure, so carefully reared after years of debate in Congress and there is now very little of it left. The doctrine repeatedly set forth by the courts that an accused man cannot be required to furnish any information incriminating himself makes it almost impossible to secure satisfactory evidence. Judge Gresham's recent decision declaring unconstitutional so much of section 12 as requires the courts to use their power in aid of inquiries before the commission perhaps goes a little farther than any previous utterance from the bench. The law has proved to be substantially a failure all around.—*Economist, Chicago.*

WILL WANT GRAIN AT HOME.

The refusal of the Continent to buy Californian wheat is not merely a reluctance to pay the price. It is largely the result of Continental non-speculation and general disinclination to buy grain a long way ahead. North America may yet see state railways carrying grain across the Continent in a week, in which case the Continental wheat markets may be revolutionized even more than those of our own country. Are the states of the American Union in earnest about prohibiting immigration? If they are not the export of grain is a very temporary question. Twenty years hence it will all be wanted at home. But if immigration is to be stopped from Europe as it has been from China, the American corn grower will have still, and for an indefinite period, the European markets within his view.—*The Miller, London.*

DEALERS GAIN BY THE REDUCTION.

The recent decision of the Interstate Commerce Commission in the case of the Minneapolis Board of Trade vs. the several railroads of the Northwest contains an element of personal profit to which reference has not heretofore been made. On a very many of the roads in the Northwest the local elevators are filled with wheat, purchased under the adjustment of rates heretofore prevailing, and sold in Minneapolis for May delivery; or in other words, this wheat was purchased by the elevator proprietors at the current market price in Minneapolis less the established rates to that point; but which, should the rates ordered by the commission be put into effect, will net the owners an additional profit equal to the amount of the reduction. Some idea of the amount of this additional profit which would thus by the order of the commission be transferred from the railways to the wheat speculators may be gathered from the fact that from one road the amount in store at the local elevators will net the owners an added profit of more than \$68,000.—*Railway Review.*

DRIVING ELEVATORS OUT OF MINNESOTA.

While the more absurd elevator bills introduced in the Minnesota Legislature this winter are apparently laid aside, others that promise to disturb grain interests are possible to become laws. Among them are those to make country elevators public elevators, when occupying railroad ground, and others to declare terminal elevators public elevators. They way is clear for anyone to build public elevators, but to impose this proposed legislation upon such as are built for other and legitimate purposes, it is little less than confiscation. Already the oppression of the Minnesota statutes has driven elevators out of Minnesota to Wisconsin, where others are already started. They go there because that state does not legislate against the grain interests. All Minnesota has to do, to build up

cities just over the line, is to enact such burdensome requirements as these bills propose. By them the legitimate commerce of the state will be transacted beyond the jurisdiction of these unwholesome laws.—*Market Record, Minneapolis.*

AS SEEN THROUGH THE EYE OF PREJUDICE.

The grain men of the Northwest seem to be having a practical demonstration of the high standard of business morality which obtains on the Chicago Board of Trade, in the attempt being made by the grain gamblers there to squeeze them. It is an adage that "You can't beat Chicago," and it is proving true this year, as before and always. "You can't beat Chicago" because you cannot beat any "brace" game. The legitimate operator, in the very nature of things, cannot match the professional gambler with his chosen weapons. An attempt to play even, to be protected, will be thwarted by the flicker-the-desk-and-the-sign man, even if he has to resort to illegitimate methods as he has in this instance, to gain his ends. While, as we remarked a few weeks ago, the general public does not look for instruction in moral ethics to the Chicago Board of Trade, the grain men of the Northwest, despite the many lessons given them, still allow themselves to be used as catspaws by the shrewd Chicago clique, whenever the latter feels it necessary, for its safety and protection, to simulate the character of the honest and legitimate grain handler.—*Northwestern Miller, Minneapolis.*

THE EXCHANGES

Certificates of membership in the New York Produce Exchange have recently sold as low as \$650.

The Winnipeg Grain Exchange has successfully opposed the mixing of grain at terminal elevators.

Having outgrown its quarters the Duluth Board of Trade will erect a suitable building at a cost of \$250,000.

The officers of the new grain exchange recently organized at Fort William, Ont., are Charles Braithwaite, president, and O. H. Cooper, secretary.

The New York Produce Exchange has received with some favor the proposition that it unite with the Coffee Exchange, which has been finding trade dull.

Members of the Baltimore Corn and Flour Exchange were feeling good March 2 over the defeat of the Anti-Option bill, and indulged in the kangaroo dance.

A petition asking Chief Grain Inspector Bunker to retain Assistant Chief Smiley has been circulated and numerously signed on the Chicago Board of Trade.

At their recent meeting of the directors of the San Francisco Board of Trade elected A. A. Watkins, president; Jules Cerf, first vice-president; S. Nickelberg, second vice-president; E. W. Newhall, treasurer, and H. L. Smith, secretary.

A joke on the St. Louis Merchants' Exchange recently caused loss to some of the brokers. A trader posted several fictitious Chicago quotations, and the crowd, seeing, as they supposed, that the Chicago market was going to pieces, sold out 25,000 bushels before they saw through the trick.

The Superior Board of Trade of Superior, Wis., is ambitious to control the grain inspection at that point. The grain dealers are satisfied with the present system, but may not be able to shape the course of the board for the millers who are members seem determined to have their own inspection.

A large number of grain men have taken offices in the new Board of Trade Building, erected at Winnipeg by N. Bawlf, the pioneer grain dealer of Manitoba. The centralization of the grain trade in this building, by having the Winnipeg Grain Exchange and the grain men together, has done much to facilitate business.

At 11 o'clock central time, March 4, when the defeat of the Anti-Option bill was assured the news was telegraphed from Washington to the Chicago Board of Trade and for over an hour the joy of the brokers was unconfined. Scores of them joined in songs of "We'll Hang Miller Washburn to a Sour Apple Tree," "This Wheat Buy and Buy," etc.

The Cleveland Chamber of Commerce was recently incorporated at Cleveland, O., to perform on a larger scale the functions hitherto discharged by its predecessor, the Cleveland Board of Trade. The old board had outlived its usefulness. The new chamber is to have 1,000 members, own its own building and be the center of the city's commercial and industrial life. The new chamber will also absorb the Cleveland Board of Industry, a young but vigorous organization.

At its annual meeting the Superior Board of Trade recently elected R. M. Todd, president; A. A. Cross, first vice-president; C. J. McCollum, second vice-president; H. A. George, secretary, and Wilmot Sarger, treasurer. The directors elected are C. J. McCollum, F. G. Peters, L. R. Hurd, Committee on arbitration; H. E. Ticknor,

P. M. Chandler, A. McEachern, W. M. Talt, R. M. Todd. Committee on appeals: E. C. Kennedy, C. J. McCollum, S. T. Norvell, C. H. Sunderland and F. H. Decker.

Chicago as a sample grain market is growing every year, and the facilities of the Board of Trade for handling this valuable business are fully employed. At the annual sale of sample tables on the exchange floor February 25 eighteen more tables were sold than last year, the premiums for choice netting \$11,885. Milmlne, Bodman & Co. paid the highest premium—\$205—for first choice. Many commission firms paid from \$125 to \$150 premium. This year the premiums averaged higher than last year.

The Winnipeg Board of Trade recently elected F. W. Stobart, president; W. B. Scarth, vice president; A. Strang, treasurer, and C. N. Bell, secretary. Council—C. C. Chipman, H. S. Westbrook, John Galt, J. H. Ashdown, K. McKenzie, J. Porter, R. J. Whida, D. W. Bole, J. H. Hausser, W. D. Pettigrew, S. Nalrn, W. Georgeson, G. R. Crow, A. Atkinson, H. Miller and S. Spink. Board of Arbitrators—K. McKenzie, E. L. Drewry, G. F. Galt, G. F. Maulson, S. A. D. Bertrand, J. H. Brock, R. T. Riley, S. Spink, John Galt, William Hespeler and James E. Steen.

The rules of the Chicago Board of Trade provide "that the board of directors shall have power, when in their judgment an emergency exists, requiring more storage room than can be supplied by the regular elevator warehouses, to declare any storehouses, vessels or places suitable for the storage of grain or flaxseed, within the city limits—wherein the cost of delivery to vessels or railroad cars shall not be greater than such as is made by the regular elevators for the same service—to be regular places for the storage of grain deliverable under the rules of the Board of Trade." From this it will be seen that any attempt to corner storage will result disastrously to anyone so foolish as to try it.

Dull times prevailing on the New York Produce Exchange, the traders there have leisure to sport. Recently Messrs. Day and Cook sketched a bear on his hind legs with his mouth in a broad grin saying: "Ground bare of snow, eh? Rats;" with the following verses:

They whoop it and bid it as hard as they're able,
And eagerly distribute some crop-lying fable;
But bruin sits by with a sarcastic smile,
And jumps on their necks every once in a while;
I help 'em get it up, I do,
And then, by gosh, I sell 'em.
The bulls they are a simple lot,
And take in all you tell 'em.

PERSONAL

H. W. Miller has moved from Faribault to Madison, Minn., where he will buy grain for Rippe Bros.

John O. Foering has been re-appointed chief grain inspector at Philadelphia for his seventeenth term.

John McWhirter has moved from Morrison to Peterson, Ia., to engage in the grain and stock business.

Conway W. Ball was recently re-appointed chief inspector of grain by the Buffalo Merchants' Exchange.

Samuel P. Jones, a farmer of Harper county, has been appointed Kansas State Grain Inspector by Gov. Lewelling.

Louis Wagner has been appointed warehouse registrar at Chicago by the Illinois Railroad and Warehouse Commission.

Joseph A. McLincy of Brodnax & McLincy, grain dealers at Kansas City, Mo., was recently married to Miss Kittie Ford.

W. L. Gorrie, accountant of the state grain inspection department at Duluth, Minn., was married recently to Miss Margaret L. Buchanan.

George M. Ashmore of Mount Zion, Macon county, has been appointed chief grain inspector for that county by Gov. Altgeld of Illinois, to succeed James S. Wiley, whose term has expired.

Harper, the quondam grain speculator and wrecker of the Fidelity Bank, has had his sentence commuted by President Harrison. Harper's health has broken down.

That the far Canadian Northwest is perfectly capable of producing as fine grain as can be grown anywhere in the world has been abundantly proven by farmers in the Peace River district of Athabasca, Northwest Territory. That grain can be grown over 1,000 miles northwest from Winnipeg and 500 miles north of the northern boundary of the United States is remarkable, but is not more so than the wonderful excellence of the crops. Samples furnished by A. Mackenzie, T. A. Brick and the Shaftsbury Mission weighed as follows: Ladoga wheat 71½ pounds, red fife 71 pounds, and English two-rowed barley 55 pounds per measured bushel. The samples were very fine and beautiful in color. Oats will grow anywhere in the Northwest.

Latest Decisions.

Effect of Loss of Warehouse Receipt.

Where a receipt for cotton, issued by the proprietor of a cotton yard, is lost, the owner of such receipt is entitled to such cotton without first indemnifying the proprietor against any claim which might thereafter be made, by the finder or holder of such receipt.—*Clay vs. Gage, Civil Court of Appeals of Texas, 20 S. W. Rep. 948.*

Telegram—Limiting Liability.

The Supreme Court of North Carolina held, in the recent case of Brown vs. Postal Telegraph Cable Company, that a stipulation on a telegraph blank against liability for mistake or delay in the transmission of an un-repeated message, or limiting liability unless specially insured to fifty times the price paid for transmitting the message, was void.

Compensation for Extra Time Under Eight-Hour Law.

Under a statute providing that eight hours shall constitute a legal day's work, but permitting overwork by agreement for an extra compensation, where one accepts a position knowing that he will be expected to work more than the statutory time, his consent to his employer's requirements will be presumed, if he continues to work without objection or giving notice of an intention to charge for extra time, and he cannot recover for the time in excess of eight hours a day during which he worked. Such a statute applies only to cases where the employment is by the day.—*Helphensteine vs. Hartig, Appellate Court of Indiana, 31 N. E. Rep. 845.*

Sale—Contracts—Delivery—Damages.

Souka vs. Chatham et al., recently decided by the Texas Court of Civil Appeals, was a case in which it appeared that the appellant purchased goods of the appellees to be delivered by a certain date. Afterward and before the shipment of goods he changed or endeavored to change the order; the goods as originally ordered were shipped to appellant, and being refused by him were sold at auction, and the amount so received placed to his credit and the balance of the bill was sued for. The court reversed a judgment for the appellees, holding that they should not have shipped the goods to the appellant, thereby subjecting him to additional damages, but should have stopped performance as far as possible, and held appellants liable for such damages as had then resulted.

Effect of Making a Sale Appear a Leasing.

Where a sale is made, but under the guise of a lease, the title to personal property is reserved in the vendor or lessor, as is done with sewing machines, pianos, cars and agricultural implements, such contracts are held to be conditional sales, that is, sales with a condition that the title shall remain in the vendor until the property is paid for, and in all such cases, while, as between the parties, the title does not pass, they are invalid as to purchasers and creditors without notice under the statutes of most of the states, though in the absence of any statute on the subject a sale upon condition, reserving the title in the vendor, is good as against purchasers and creditors of the vendee without notice.—*McClelland vs. Scroggin, Supreme Court of Nebraska, 33 N. W. Rep. 469.*

Liability of Railroads as Carriers and as Warehousemen.

In some of the states the liability of a common carrier as such is ended when the transportation is completed, and the goods are safely stored; while in other states the carriers' responsibility continues until the consignee has had a reasonable opportunity, after the arrival of the goods, to receive them. A common carrier is held to the highest degree of responsibility as an insurer of the goods accepted by it for transportation, while of a warehouseman much less is required. When a railroad company ceases to be liable as a common carrier, and takes the responsibility of a warehouseman, it is then only liable if loss results from its negligence as the proximate cause, and if its negligence is not the proximate cause of loss, the company will not be liable.—*East Tennessee V. & G. Ry. Co. vs. Kelly, Supreme Court of Tennessee, 20 S. W. Rep. 312.*

Right of Subrogation—Rate on Warehouse.

In an action on certain policies of insurance, covering cotton destroyed by the burning of the warehouse in which it was stored, which policies provided that on the payment of any loss the insurer should be subrogated to any right of action which the insured might have against any person by whose act or omission such loss might be occasioned, it appeared that the warehouse stood on land within the limits of a railroad company's right of the way; that this land was held by the warehousemen under a lease from the railroad company by which the lessor was exempted from liability for any loss occasioned by fire communicated from its locomotives. Defendants were permitted to introduce evidence that reputable insurance companies regarded the right of subrogation so material that some would refuse to take risks where that

right was barred or released, or that others would take such risks only at a higher rate of premium. Held, that it was competent for plaintiff to show that reputable insurance companies, knowing that the right of subrogation was released, did take risks at a lower rate of premium on cotton stored in the new warehouse erected where the old one stood.

The warehousemen had an insurable interest in the cotton stored with them, they having contracted to indemnify the owners thereof for its loss, and the trial court properly construed the policies covering cotton stored in the insured's warehouse so as not only to cover cotton owned absolutely by them, but also that which was in their possession as warehousemen. The warehousemen having released whatever right of action they would have had in case of fire against the railroad company before the policies of insurance were issued, defendants cannot claim to be subrogated to such released right.

Where defendants issued the policies of insurance on verbal applications, and asked no questions except as to the amount of insurance wanted, the property to be insured, and its location, and the warehousemen made no misrepresentations, defendants cannot escape liability on the ground that the policies provided that failure to make known any facts material to the risk would render the policies void. The court properly refused to charge that the recording of the lease from the railroad company to the warehousemen did not constitute notice to defendants of the contents of the lease, and, unless they had actual notice of such contents when the policies were issued, they cannot be held to have known of its existence or of its contents.

Fires, Casualties, Etc.

The elevator at Polk City, Ia., was burned on the night of March 13.

J. F. McGregor & Co., grain dealers at Alexandria, Ont., recently suffered loss by fire.

The elevator and mill at Garnett, Kan., was burned at night February 17. Loss, \$20,000.

Alexander McKinley, grain dealer and grocer at Clermont, Ia., recently suffered loss by fire.

E. M. Dewey's barley-crushing mill at San Bernardino, Cal., was recently burned. No insurance.

A. S. Mickey's grain elevator and flour mill at Tipton, Ind., was burned February 19. Loss, \$35,000.

E. L. Horth's grain elevator at Centralia, Kan., was burned February 28. Loss, \$20,000; insurance, \$3,000.

Edward Riddler, foreman of Ogilvie's elevator at Minnedosa, Man., was caught in the machinery and instantly killed.

The elevator of Heunan, Timm & Greves at New Holstein, Wis., was recently burned, with over 12,000 bushels of grain. Loss, \$12,000; small insurance.

Samuel Donnel's elevator at Stanton, Ia., was burned recently. Loss, \$8,000; insurance, \$3,000. Sparks from a passing engine are supposed to have caused the fire.

Robinson & Co.'s elevator and mill at Clinton, Ind., were burned March 11, with 30,000 bushels of wheat. Loss on elevator, \$15,000; on mill, \$18,000; insurance, \$8,000.

The Minnesota & Western Grain Company's elevator at Heron Lake, Minn., was burned at 2 o'clock A. M., February 19, with about 1,000 bushels of grain. Loss, \$10,000.

The elevator at Redwood Falls, Minn., owned by the G. W. Van Dusen Elevator Company, was burned on the evening of February 28, with 12,000 bushels of wheat and 5,000 bushels of flax. Loss, \$30,000; partly insured.

Early & Daniel's warehouse at Cincinnati, O., was burned at midnight, February 27. The building contained a quantity of hay and 30 carloads of grain, some of which was saved by being removed. Loss, \$10,000; insured.

J. W. Frost, manager for Kendall & Smith, grain dealers at Wauneta, Neb., recently had a finger cut off. He was closing the large doors of his elevator, when they were blown shut, catching his hand in such a way as to completely sever one finger, although he wore a heavy glove at the time. A terrific windstorm had been raging all that day.

The steam boiler in the grain elevator of McCormick & Bros. at West Line, Cass Co., Mo., exploded with great force on the afternoon of February 21. E. C. McMillan and Robert Davis were instantly killed, the former being blown to pieces and the latter having his head cut off and abdomen ripped open. Nelson McCormick was so badly hurt that he died soon after. William Jones and Abraham Cahill were terribly bruised and severely scalded by the steam. Their cries were heartrending. The entire establishment was wrecked. People seven miles away heard the explosion. No cause is known as the boiler was supposed to be in good order.

OBITUARY

M. Solomon, grain dealer at Salina, Kan., is dead.

A. A. Jones, grain dealer and elevator man at Humholdt, Kau., is dead.

F. W. Neavitt of Emory & Neavitt, grain commission merchant at Baltimore, Md., is dead.

W. A. Lamper of J. B. & W. A. Lamper, dealers in grain and hay at Lynn, Mass., is dead.

Julius Lourie, an old and well-known grain dealer at New York, N. Y., died February 19 from the effects of the amputation of his left leg.

George F. Stone, secretary of the Chicago Board of Trade, was sadly bereaved recently by the death of his only son, George Chapman Stone. The directory of the board has extended to himself and family their sincere sympathy and condolence.

A. C. Low, the grain dealer and prominent citizen of Atchison, Kan., who accidentally shot himself last month, has died since. He was going out of the house to shoot a rat in the barn when he fell on the threshold, causing the revolver he carried in his coat pocket to be discharged. The bullet passed entirely through his body.

Charles Gustav Siller, grain dealer on the Chicago Board of Trade, died of asthma March 7. Mr. Siller was born at St. Petersburg, Russia, in 1840, and was brought to this country by his parents at an early age. He joined the union army in the civil war, and when it was over started in business on the Board of Trade. He leaves a widow and five children.

W. T. Furlong died at his home in Kansas City, Mo., March 10, aged 37 years. He was for many years in the grain commission business and was a member of the Board of Trade. Failing health compelled him to retire from business several years ago. He leaves a wife and one child. Prominent members of the Commercial Exchange attended the funeral obsequies.

Augustine N. Lee, an old member of the Chicago Board of Trade, died at his residence in Chicago February 15 of paralysis of the brain. For sixteen years subsequent to becoming a member of the milling firm of Foster, Lee & Co., in 1860, he was an active operator on the Board of Trade, but since 1886 he has been out of business, and for the past year has been confined to his home. He was born at Granby, Conn., in 1829. He leaves a widow.

John R. Wheeler, who for many years was a member of the Illinois Railroad and Warehouse Commission, died at his home in Chicago recently. Mr. Wheeler was held in high esteem by everyone. He took an active part in church work. His funeral was attended by many personal friends, among them being ex-Gov. Fifer, Messrs. Phillips and Paddock, with whom he served on the Railroad and Warehouse Commission, and P. Bird Price, chief grain inspector.

George Webster died at his residence in Chicago recently aged 63 years. He was born at Walpole, N. H. Thence he went to Boston, but fire destroyed his establishment and he went West to Toledo and thence to Chicago, where, forming a partnership with the late D. F. Baxter, he started in the grain receiving and shipping business making flaxseed their specialty. For some years after 1859 they were the largest dealers in flaxseed, and during the war had large contracts for army grain supplies. In 1871 the great fire destroyed their property and the firm was dissolved, but Mr. Webster continued to operate extensively on the Board of Trade, taking his son George H. into partnership in 1886. Ill health compelled his retirement from business a year and a half ago. He leaves a wife and son. The pall bearers at his funeral were selected from his old friends on the Board of Trade, being P. B. Weare, J. M. Wanzer, C. A. Rogers, L. C. Platt, Ezra Baldwin, George Clark, John Fry and Thomas Fry.

Charles Fox Dwight of Linn & Dwight, grain dealers and elevator men of Chicago, died suddenly of apoplexy on the morning of February 15 at his home in Evanston. He was regarded as a man of vigorous constitution and his unexpected death was a painful surprise to all who knew him. He had been to his office the day before. While eating breakfast he complained of a severe pain in the chest, but it soon passed away and he dozed his overcoat and was about to go out of the door when the family physician, who had been sent for by his wife, urged him to remain to be examined. He had no sooner removed his overcoat than he sank unconscious to the floor and expired. Mr. Dwight was born at Jackson, Mich., in 1840. In 1875 he went to Chicago, engaging in the commission business with Charles A. Moir, but soon removed to Milwaukee, where he remained until 1878. Returning to Chicago he joined the firm of Poole & Sherman. After a few years he went into business for himself, and five years ago he formed a partnership with William R. Linn, as Linn & Dwight. The death of Mr. Dwight is regretted by his numerous business acquaintances on the Board of Trade and by friends in the suburb of Evanston, where he took a prominent part in society events. A widow and six children mourn his death.

WAREHOUSE LAW FOR KENTUCKY.

The following bill originated in the House of Representatives of the Kentucky Legislature. It was passed by that body and sent to the Senate:

AN ACT CONCERNING WAREHOUSES.

ARTICLE I. GENERAL PROVISIONS.

Be it enacted by the General Assembly of the Commonwealth of Kentucky:

SECTION 1. Any person or corporation who shall receive cotton, tobacco, pork, grain, corn, wheat, rye, oats, hemp, whiskey, coal, or any kind of produce, wares, merchandise, commodity, or any other kind or description of personal property or thing whatever, in store, or undertake to receive or take care of the same, with or without compensation or reward therefor, shall be deemed and held to be warehousemen.

SEC. 2. Every warehouseman receiving anything enumerated in the preceding section shall, on demand of the owner thereof, or the person from whom he receives the same, give a receipt therefor, setting forth the quality, quantity, kind and description thereof, if known, and which shall be designated by some mark, and which receipt shall be evidence in any action against said warehouseman.

SEC. 3. All receipts issued by any warehouseman as provided by this chapter shall be negotiable and transferable by indorsement in blank, or by special indorsement, and with like liability as bills of exchange now are and with like remedy thereon.

SEC. 4. No warehouseman or other person or persons shall issue any receipt or other voucher for any goods, wares, merchandise, produce or other thing enumerated in section one of this article, or for any other commodity or thing, to any person or corporation, unless such goods, wares, merchandise, produce, property, commodity or thing shall have been *bona fide* received into possession and store by such warehouseman or other person, and shall be in store and under his or their control, care and keeping at the time of issuing such receipt.

SEC. 5. No warehouseman or other person shall issue any receipt or voucher upon, or for any goods, wares, merchandise, produce, commodity, property, or other thing, of any description or character whatever, to any person or corporation, as security for any money loaned, or other indebtedness, unless such goods, wares, merchandise, produce, commodity, property or other thing so receipted for shall be, at the time of issuing such receipt or voucher, the property of the warehouseman and not actually in store and under his control, and if there be a lien on the property, then the character and extent of the lien shall be fully set forth and explained in the receipt or voucher.

SEC. 6. No warehouseman or other person shall issue any receipt or other voucher for any goods, wares, merchandise, produce or other thing enumerated in section one of this article, whilst any former receipt for any such goods, wares, merchandise, produce, commodity, property, or thing as aforesaid, or any part thereof, shall be outstanding and uncanceled.

SEC. 7. No warehouseman or other person shall sell or encumber, ship, transfer, or in any manner remove beyond his immediate control, any goods, wares, merchandise, produce, commodity, property or chattel, for which a receipt or voucher shall have been given, without the written consent of the person or persons holding such receipt, and the production of the receipt.

SEC. 8. Any warehouseman or person who shall willfully and knowingly violate any of the provisions of this article shall be deemed a cheat and swindler, and subject to indictment; and, upon conviction, shall be fined in any sum not exceeding five thousand dollars, or shall be imprisoned in the penitentiary not less than two nor more than five years, or both so fined and imprisoned, in the discretion of the jury; and every person aggrieved by the violation of any of the provisions of this article shall have and maintain an action against the person or corporation violating any of the provisions of this article to recover all damages, immediate, consequent, legal and extraordinary, which he or they may have sustained by reason of such violation as aforesaid, whether such person may have been convicted or not.

SEC. 9. When any receipt or voucher shall have been issued as provided by this article, and used or pledged as collateral security or otherwise for the loan of money, the bank or person to whom the same may be pledged, hypothecated or transferred shall have power and authority to sell the same and transfer title thereto in such manner and on such terms as may be agreed upon in writing by the parties at the time of making the pledge.

SEC. 10. Warehousemen shall keep a register, in which shall be recorded a list and description of all property which may be stored in their warehouses, and the name and residence of the owner, if known, and the time when the same was received, and the amount of charges thereon.

SEC. 11. Any property in a warehouse upon which the charges have not been paid for twelve months after the same has become due, unless otherwise provided by contract, the warehouseman may sell such property, or enough thereof to pay the charge, at public auction, at the warehouse or at the court house door of the county in which the warehouse is situated. Before any such sale shall be made, the warehouseman shall cause the sale of the property to be advertised for not less than twenty days before the day of the sale, by printed notices posted at the door of the court house of the county, and in three or more public places in the county where the sale is to take place, and by having such notice published at least once a week for at least three weeks in a newspaper of general circulation in the county where the warehouse is situated. Such notice shall contain the day and place of sale, a description of the property to be sold, if known; if not, a description of the package in which it is contained, the amount of charges, and the name and place of residence of the owner if known; and the warehouseman, at least ten days before the day of sale, shall mail to the owner a notice of the time and place of sale, with a description of the article to be sold, and amount of charges.

SEC. 12. The warehouseman from the proceeds of the sale shall pay all the necessary charges and costs of the sale, and shall hold the overplus, if any, subject to the order of the owner, and shall, immediately thereafter, mail to the owner thereof a notice of said sale, amount due him, if his place of residence be known; and at any time within twelve months after such sale, upon the demand of the owner, the warehouseman shall pay the same to him. All such sums which may be in the hands of the warehouseman, not claimed by the

owner for twelve months after such sale, shall be paid into the State Treasury, which shall be held for a period of two years, subject to the order of the owner or his representatives, upon he or they making satisfactory proof of the rightful ownership of same.

SEC. 13. It shall be unlawful for the owners, operators or controllers of any warehouse of the kind herein contemplated to make any contract restricting or limiting their common-law liability for goods stored.

ARTICLE II. GRAIN WAREHOUSES.

SECTION 1. Public grain elevators, warehouses and granaries in this commonwealth shall embrace those in which grain is stored, inspected, classified and sold.

SEC. 2. The proprietor, lessee or manager of any public grain warehouse shall, before transacting any business therein, procure from the clerk of the county court a license permitting him to transact the business of such a warehouse, which license shall be issued by the clerk of said court, on a written application, setting forth the location and name of such warehouse, and the name of each person interested as owner or principal in the management thereof; if the warehouse be owned or kept by a corporation, its name and those of its president, secretary and treasurer. This license shall be granted upon the payment of a fee of one dollar to the clerk and shall be recorded in the bond and power of attorney book in the clerk's office. It shall be revocable by the circuit court of the county, upon a summary proceeding before that court, upon written complaint of any person setting forth the particular violation of law, and on satisfactory proof, to be taken as may be directed by the court.

SEC. 3. The person receiving a license shall file a bond in the county clerk's office, with good sureties, to be approved by the court, in the penal sum of ten thousand dollars, conditioned for the faithful performance of his duty as a public grain warehouseman, and his compliance with the laws relating thereto. Suit may be brought on such bond by any person injured by the violation of this law, or by the non-performance of any of the warehouseman's duties.

SEC. 4. The license herein provided for shall not disperse with the obtaining from year to year such license as any city may lawfully require under its charter for the purpose of taxation. Anyone transacting the business of a warehouseman without first procuring a license, as herein provided, or continuing such business after such license is revoked (except by delivering property previously stored), shall be fined, on conviction, in the sum of one hundred dollars for each day such business is carried on, and the court revoking a license may adjudge that no new one shall be granted to the person holding it or to any of them, within one year from the time the same may be revoked.

SEC. 5. It shall be the duty of every such warehouseman to receive for storage any grain that may be tendered to him, without making any discrimination between persons, such grain in all cases to be inspected and graded by a duly authorized inspector, and to be stored with grain of a similar grade received at the same time, as near as may be. In no case shall grain of different grades be mixed together while in store; but if the owner or consignee so requests, his grain may be kept by itself in a separate bin. If a warehouse receipt be issued for grain so kept separate, it shall state on its face that it is in a separate bin. Nothing in this section shall be so construed as to require the receipt of grain into any warehouse in which there is not sufficient room to accommodate or store it properly, or in cases where the warehouse is necessarily closed.

SEC. 6. On application of the owner or consignee of grain stored in such a warehouse, and the charges of inspection being paid, the warehouseman shall issue to the person entitled thereto a warehouse receipt therefor, subject to the order of the owner or consignee, which receipt shall bear date corresponding with the receipt of grain into store, and shall state upon its face the quantity and inspected grade of the grain, and that the grain mentioned has been received in store, to be received with other grain of like grade and of about the same time of receipt, and that it is deliverable upon the return of the receipt, properly indorsed by the person to whose order it was issued, and the payment of the proper charges for storage. All warehouse receipts for grain issued from the same warehouse shall be consecutively numbered, and no two receipts shall bear the same number, except in case of a lost or destroyed receipt, in which case the new receipt shall bear the same date and number as the original, and shall be plainly marked on its face "Duplicate." If the receipt was received from railroad cars, the number of each car shall be stated upon the receipt, with the amount it contained; if from steamboat or other vessel, the name of the craft; if by teams or by other means, the manner of its receipt shall be stated. On delivery of grain from store against receipt, such receipt shall be plainly marked across its face with the word "Canceled," and the name of the person canceling the same, and shall thereafter be void, and not again be put in circulation.

SEC. 7. No warehouse receipt shall be issued, except on the actual delivery of grain into store in the warehouse from which it purports to be issued, and which is to be represented by the receipt, nor for a greater quantity of grain than was received. Where a part of the grain represented by the receipt is delivered out of store, a new receipt may be issued for the remainder, but it shall bear the same date as the original, and show on its face that it is balance of the original number, and the receipt on which part has been delivered shall be canceled. When it is desired to divide one receipt or to consolidate two or more into one, this may be done with the warehouseman's consent, and the original receipts may be canceled; but the new ones must show on their face that they have proceeded from such division or consolidation, together with the numbers and dates of the old receipts.

SEC. 8. No grain warehouseman can by any proviso in the receipt or in any otherwise, restrict the liability put upon him by law.

SEC. 9. Upon presentation of the receipt, properly indorsed, and tender of charges, the quality of grain therein named shall be at once delivered to the owner, and no storage can be charged after demand made. And for any delay in delivery beyond the time required with due diligence, care and prudence, the warehouseman shall be liable for damages which, at the option of the party injured, may be assessed at one cent per bushel for every day of neglect or refusal to deliver.

SEC. 10. Each grain warehouseman shall, on every Tuesday, post in his office a statement of the amount of each kind and grade of grain on store in his warehouse at the close of business hours of the preceding Saturday, and shall furnish daily to a registrar of warehouses, hereinafter provided for, if there be one appointed for the city or county in which the warehouse is situated, a statement of all the receipts and de-

liveries and of the issue and cancellation of receipts of the day, together with any other information that may be needed for keeping a true and faithful record of the state of the warehouse. If there be no registrar, he shall post, as provided in this section a statement of the receipts and deliveries, and of the issue and cancellation of receipts of the week ending with such Saturday.

SEC. 11. The Commissioner of Agriculture shall appoint an inspector, weigher and registrar for the warehouses in the city, and fix their duties, the amount and kind of bond to be given by them, and their fees, which shall be paid by the seller, and the Board of Trade shall, at least once in each year establish standard grades of the various kinds of grain by which the inspectors shall be governed in their inspections; but any warehouseman, seller or buyer, or other person in interest, may, on summary complaint to the circuit court of the county, obtain a reduction of the fees, if in the opinion of that court they are exorbitant. And the same court shall, upon complaint of malfeasance or neglect, remove any inspector, weigher or registrar, and declare him incompetent for re-appointment, the proceedings being as near as may be similar to those for vacating an office. No member of the Board of Trade or person interested in any warehouse, shall be appointed inspector, weigher or registrar, nor shall any inspector, weigher or registrar have stored or offer for sale, in any warehouse under his supervision, any commodity owned by him, or in which he is directly or indirectly interested, nor shall he be a purchaser at any sale made by the warehouse of any commodity inspected, weighed or registered by him. No person shall be appointed inspector, weigher or registrar, unless he be a citizen of the State of Kentucky, has attained the age of twenty-five years, and have been a resident of the city for which he has been chosen at least one year next preceding his appointment.

SEC. 12. Every such warehouseman shall, before receiving any grain on store, and thereafter within the first week of every January and July, publish his rates of storage and charges for receipts and deliveries, by posting them in his office and in the rooms of the Board of Trade, if there be any in a city situated in the same county as the warehouse, and shall not increase them during the intervening time, nor shall any subsequent change of rates apply to grain previously received in the warehouse.

SEC. 13. In all cities and counties where there are grain warehouses, and where there is no Board of Trade, it shall be the duty of the fiscal court of the county to appoint an inspector and weigher for said warehouses, who shall file a bond in the county clerk's office, with good sureties, to be approved by the court, conditioned for the faithful performance of his duty as such inspector and weigher, on which suit may be brought by any person injured by the violation of such duty. Said inspector and weigher shall have the inspection and weighing of all commodities stored in said warehouses. The fiscal court of the county shall fix the fees of said inspector and weigher, which shall be paid by the seller. No person interested in any warehouse shall be appointed an inspector, weigher or registrar; nor shall any inspector, weigher or registrar have stored or offered for sale in any warehouse under his supervision any commodity owned by him or in which he is directly or indirectly interested. Nor shall he be a purchaser at any sale made by the warehouse of any commodity inspected, weighed or registered by him. No person shall be appointed inspector and weigher unless he be a citizen of the State of Kentucky, has attained the age of twenty-five years, and has been a resident of the county for which he has been chosen at least one year next preceding his appointment. Said inspector and weigher shall be appointed for the term of two years, and until his successor is appointed and qualified.

SEC. 14. No public warehouseman shall be held responsible for any loss or damage to property by fire while in his custody, provided reasonable care be exercised to protect and preserve the same, nor for loss or damage by heating, if he has exercised due care in handling and storing the grain, and the heating resulted from causes beyond his control. To prevent injustice from heating, it shall be the duty of the warehouseman, as nearly as possible, to deliver out grain of each grade in the order of time in which it was received. In case, however, that a warehouseman shall discover that any part of the grain in his warehouse is out of condition, or becoming so, and it is not in his power to preserve the same (provided it is not stored in a separate bin, as above provided for) he shall, by notice published in a daily newspaper of Louisville, or in the county where the warehouse is situated, if there be one, and posted at the Board of Trade rooms, if there is a Board of Trade in the city where the warehouse is located, or by written notice to the person to whom the warehouse receipt was issued, if known, of its actual condition, as near as he can ascertain it, state the kind and grade of grain, and the bin in which it is stored; and shall also state, in such notice, the receipts outstanding upon which such grain will be delivered, giving the numbers, amounts and dates of each, which receipts shall be those of the oldest dates then in circulation or canceled, the grain represented by which has not previously been declared or receipted for as out of condition; or if the grain longest in store has not been receipted for, he shall so state, and shall give the name of the party for whom such grain was stored, the date it was received, and the amount of it; and the enumeration of receipts and identification of grain so discredited shall embrace, as near as may be, as great a quantity of grain as is contained in such bins; and such grain shall be delivered upon the return and cancellation of the receipts, and the unreceipted grain upon the request of the owner or person in charge thereof. Nothing herein contained shall be held to relieve the said warehouseman from exercising proper care and vigilance in preserving such grain after publication of its condition; but such grain shall be kept separate and apart from all direct contact with other grain, and shall not be mixed with other grain while in store in such warehouse. Any warehouseman guilty of any act or neglect, the effect of which is to depreciate property stored in the warehouse under his control, shall be held responsible as at common law, or upon the bond of such warehouseman, and, in addition thereto, the license of such warehouseman shall be revoked. In case the grain declared out of condition, as herein provided for, shall not be removed from store by the owner thereof within two months from the date of the notice of its being out of condition, it shall be lawful for the warehouseman where the grain is stored to sell the same at public auction, for account of said owner, by giving ten days' public notice in a daily newspaper of Louisville, or of the county where the warehouse is situated, if there be one.

SEC. 15. It shall not be lawful for any public warehouseman to mix any grain of different grades together, or to select different qualities of the same grade for the purpose of storing or delivering the same, nor shall he attempt to deliver grain of one grade for another, or in any way tamper with

grain while in his possession or custody, with a view of securing any profit to himself or any other person; and in no case, even of grain stored in a separate bin, shall he be permitted to mix grain of different grades together while in store. He may, however, on request of the owner of any grain stored in a private bin, be permitted to dry, clean or otherwise improve the condition or value of any such lot of grain; but in such case, it shall only be delivered as such separate lot, or as the grade it was originally when received by him, without reference to the grade it may be as improved by such process of drying or cleaning. Nothing in this section, however, shall prevent any warehouseman from moving grain while within his warehouse for preservation or safe-keeping.

SEC. 16. Any duly authorized inspector and weigher of grain, who shall be guilty of neglect of duty, or who shall knowingly or carelessly inspect or grade any grain improperly or who shall accept any money or other consideration directly or indirectly, for any neglect of duty, or the improper performance of any duty as such inspector of grain; and any person who shall improperly influence any inspector of grain in the performance of his duties as such inspector, shall be deemed guilty of a misdemeanor, and, on conviction, shall be fined in a sum not less than \$100 nor more than \$1,000, in the discretion of the jury, or shall be imprisoned in the county jail not less than three nor more than twelve months, or both, in the discretion of the jury.

SEC. 17. All proprietors or managers of public grain warehouses shall keep posted up at all times, in a conspicuous place in their business offices, and in each of their warehouses a printed copy of this act.

WATERWAYS

A vessel tonnage with capacity for 2,956,000 is lying at Milwaukee and can be used to load grain upon the opening of navigation.

A blockade of the marine elevators at Buffalo, N. Y., is to be expected when the grain now afloat at upper lake ports reaches that point.

Collingwood, Ont., expects a large grain trade the coming season of navigation. The elevator is large and well equipped, and the depth of water is about 15 feet.

Before July 1 the Chignecto Ship Railway Company must raise funds to complete the project, or the subsidy offered by the Canadian Government will be withheld.

The proposition to build a dam across the Niagara River to raise the level of Lake Erie and thus give deeper water at all harbors on that lake has been steadily gaining favor. The plan is simple and would cause loss to no interests.

The North American Navigation Company, which was recently organized, will compete with the Pacific Mail Steamship Company for the traffic between the Atlantic and Pacific Coasts.

The deep water jetties at Velasco, Tex., are being pushed to completion by the Brazos River Channel & Dock Company. Over \$1,500,000 has already been expended in the work.

Although no river and harbor bill was passed by the 52d Congress, the public improvements for which contracts had been authorized will be carried on with money appropriated in the sundry civil bill.

The proposed ship canal to connect Lake Erie with the Ohio River will be considered by Pittsburg capitalists at a meeting March 20 in the Chamber of Commerce. A canal company is to be organized to carry out the project with private capital.

Agents of Chicago interests have been to Duluth to arrange for the shipment of wheat from Duluth to Chicago upon the opening of navigation. The rates of transportation were too high, and it is probable that none will be shipped thence to Chicago.

A portion of the Illinois and Michigan Canal will be used as the route of the Chicago drainage canal. By such use the value of the canal as a freight carrier will be vastly increased. So far the trustees of the sanitary district have worked in harmony with the recommendations of the United States engineers in regard to navigation.

"Plank's Tavern," situated on the shore of Lake Michigan north of St. Joseph, Mich., has been purchased by Mr. J. H. Graham, president of the well known Graham & Morton Transportation Company. The establishment will be thoroughly refitted and refurnished with all the accessories of a modern seaside summer resort hotel. The name of the house will be changed to "Hotel St. Joseph." At this famous hostelry visitors to the World's Fair at Chicago can take a few days' rest from their rounds of sight-seeing. The company's palatial steamers will continue to run between Chicago and St. Joseph.

The official gazette of Canada says: "For the season of 1893, the canal tolls for the passage of the following food products, wheat, Indian corn, peas, barley, rye, oats, flax seed and buckwheat, for passage eastward through the Welland Canal, will be 10 cents per ton; and for passage eastward through the St. Lawrence Canals, only 10 cents per ton; payment of said toll of 10 cents per ton for passage through the Welland Canal to entitle these products to free passage through the St. Lawrence Canals." This tariff places Canadian and American business on the same footing. President Harrison therefore revoked the tolls levied on Canadian traffic through the Sault Ste. Marie Canal.

ITEMS FROM ABROAD

Frequent showers during the past two months have broken the four years' drought in the states of Durango and Coahuila, Mexico.

Italy imported 18,400,000 bushels of wheat in the five months preceding January 1, against 6,512,000 bushels in the corresponding months of 1891.

The Argentine Republic shipped during the first two weeks of February 2,192,000 bushels of wheat. This heavy exportation is expected to continue.

The United Kingdom in 1892 had 2,298,607 acres under wheat, against 2,392,245 acres the year before, as estimated by the British Board of Agriculture.

Germany in 1892 imported nearly half its wheat supply from the United States, and in that year imported more rye from the United States than from Russia.

Experiments on shipping grain in bulk from the Argentine Republic have been so successful the past year that much of the grain now being shipped across the ocean is sent in bulk.

Lower Burmah has 4,451,000 acres in rice, or 211,000 more than in 1891, according to the official report. For export to other countries and to Upper Burmah 1,377,000 tons of cleaned rice will be available.

The United Kingdom exported in January 20,065 quarters of wheat, 1,541 of corn, 2,846 of oats, no rye, 480 of barley, 7,464 of flaxseed, 2,057 of rapeseed, 6,615 of malt, 1,166 of peas, 217 of beans and 14,386 sacks of flour and wheat meal.

Ports in Eastern Europe, Australia and South America shipped 1,600,000 bushels of wheat the first week of March, of which 880,000 bushels was to the United Kingdom and 720,000 to the continent. The week before 1,680,000 bushels was shipped.

Australia and New Zealand shipped in the six weeks ending February 11, 306,500 quarters of wheat and flour combined, against 178,000 quarters in the corresponding weeks of 1892. Last year the total exports of wheat and flour estimated as wheat was 646,000 quarters, against 1,263,000 in 1891.

Grain elevators are to be built in Russia on the Transcaucasian line from Baku to Poti. The one at Poti will be built by a company which has been organized at Kutais. A very large elevator is contemplated at Warsaw. These elevators will fill a long felt want in the productive Caucasus, being profitable to the builders, the railroads and the farmers alike.

Hungary exported during the six months preceding January 31, 1,258,000 quarters of wheat, 468,000 of corn, 477,000 of oats, 445,000 of rye, 974,000 of barley, 169,000 of beans, and 1,978,000 sacks of wheat flour, against 1,218,000 quarters of wheat, 787,000 of corn, 514,000 of oats, 506,000 of rye, 1,138,000 of barley, 328,000 of beans and 1,647,000 sacks of flour during the corresponding six months preceding Jan. 31, 1892.

Two committees are preparing laws for grain inspection in Russia. When the drafts of the different laws are completed they will be considered by the grain commission at St. Petersburg. One committee is working on rules for inspection of export grain, and the other is to prepare a measure to concentrate the inspection to ports, so that the grain for export shall be in accordance with samples submitted, and against which the sales have been made.

Algeria exported during the five months preceding January 1, 149,000 quarters of wheat, 195,000 quarters of barley, 87,000 quarters of oats and 4,200 sacks of flour, against 198,000 quarters of wheat, 229,000 quarters of barley, 105,000 quarters of oats and 32,600 sacks of flour, during the corresponding period of 1891. The imports were 15,000 quarters of wheat, 7,000 quarters of barley and 30,500 sacks of flour during the five months preceding January 1, against 47,500 quarters of wheat, 22,600 quarters of barley and 32,300 sacks of flour during the corresponding months of 1891.

Of the seven Australian colonies only three are exporters of wheat, namely, South Australia, New Zealand and Victoria. The other four colonies, New South Wales, Queensland, West Australia and Tasmania, to a greater or less extent, are importers. The average exports from South Australia and Victoria during the last few years are about 1,500,000 quarters. The surplus of the present crop available for export is estimated at 8,000,000 bushels from South Australia, an equal amount from Victoria and half that from New Zealand. The crop is disappointing in yield, but excellent in quality.

The United Kingdom imported during the five months ending January 31, 6,444,445 quarters of wheat, 2,959,246 of corn, 2,141,360 of oats, 2,426,806 of barley, 244,668 of peas, 421,764 of beans, and 3,138,199 of wheat flour, against 7,937,107 quarters of wheat, 2,182,329 of corn, 2,424,062 of oats, 3,221,532 of barley, 324,545 of peas, 395,765 of beans and 2,413,229 of wheat flour during the corresponding period of 1891-92, and 5,966,169 quarters of wheat, 2,763,852 of corn, 2,116,272 of oats, 2,808,175 of barley, 191,712 of peas, 355,013 of beans and 2,071,-

007 of wheat flour during the corresponding period of 1890-91.

Russia's crop last year are officially and finally estimated by the Central Statistical Bureau to have been 32,152,000 quarters of wheat, 2,646,000 of corn, 54,720,000 of oats, 72,954,000 of rye, 20,940,000 of barley, 6,050,000 of buckwheat, 7,264,000 of millet and 2,615,000 of peas; in comparison with 21,903,000 quarters of wheat, 3,557,000 of corn, 52,675,000 of oats, 6,744,000 of rye, 16,913,000 of barley, 5,432,000 of buckwheat, 4,458,000 of millet and 1,963,000 of peas, for 1891. The total crop in 1892 was 199,341,000 quarters; in 1891, 167,645,000 quarters; in 1890, 112,970,000 quarters, and 187,180,000 quarters in 1889.

The hostile attitude assumed by the agricultural representatives in the German and Prussian Parliaments with reference to the contemplated commercial treaty with Russia may perhaps serve a useful purpose. The governing motive of that power in entertaining the German proposals is a desire to regain its market in Germany for Russian grain, which has been largely excluded since the treaties with Austria, Italy and Switzerland came into force. The duties on wheat and rye from those countries are now only 3s. 6d. per double cwt., and that on oats 2s 9d., whilst the duties on Russian produce are respectively 5s. and 4s. The agriculturists are making the contemplated application of the lower rates to Russian grain an occasion for attacking the policy of the government generally in respect of these duties, and they have carried by a large majority a resolution in the Prussian Landtag requesting that in the pending negotiations with Russia the agricultural interests of Germany may be safeguarded, "in view of the results of the treaties with Italy, Austria and Switzerland." There can be no doubt that the Russian Government is very desirous to secure the same terms for Russian grain as those under which that of Austria-Hungary is now imported into Germany. But these terms can only be secured by a reduction of the Russian duties on German coal, iron, steel and perhaps textiles also, and any such reduction will be made very unwillingly.—*Corn Trade News.*

LATE PATENTS

Issued on February 14, 1893.

HORSE POWER.—Emmett H. Condit, Oultville, O. (No model.) No. 491,528. Serial No. 447,394. Filed Sept. 30, 1892.

OAT CLEANER.—George H. Rich, Chicago, Ill. (No model.) No. 491,594. Serial No. 448,283. Filed Oct. 10, 1892.

GRAIN SCOURING MACHINE.—Rosie W. Welch, Baltimore, Md., assignor of thirteen-sixteenths to William H. Kellum and W. H. Kellum, trustee, same place. (No model.) No. 491,623. Serial No. 389,911. Filed April 22, 1892.

CLOVER HULLING MACHINE.—Abraham Miller, Newark, O. (No model.) No. 491,740. Serial No. 360,632. Filed Aug. 1, 1890.

GAS ENGINE.—John W. Raymond, San Francisco, Cal. (No model.) No. 491,855. Serial No. 417,965. Filed Jan. 13, 1892.

BALING PRESS.—William H. Kenner, Dundee, Tex. (No model.) No. 491,967. Serial No. 433,446. Filed May 18, 1892.

Issued on February 21, 1893.

GRAIN SPOUT.—Franklin B. Giesler, Milwaukee, Wis., assignor to the Galland-Henning Pneumatic Drum Manufacturing Company, same place. (No model.) No. 492,004. Serial No. 452,404. Filed Nov. 18, 1892.

DEVICE FOR GRADING BROOMCORN STEMS.—Clinton R. Lee, Davenport, Ia. (No model.) No. 492,032. Serial No. 425,278. Filed March 17, 1892.

BALING PRESS.—James L. Madden, Lewisport, Ky. (No model.) No. 492,037. Serial No. 428,340. Filed April 8, 1892.

GRAIN CAR.—Alonzo L. Whitcomb, Great Bend, Kan., assignor of one-half to H. Elmer Dean, same place. (No model.) No. 492,128. Serial No. 446,904. Filed Sept. 26, 1892.

GRAIN SEPARATOR.—Frank F. Landis, Waynesborough, Pa. (No model.) No. 492,213. Serial No. 434,735. Filed May 28, 1892.

Issued on February 28, 1893.

SHEET METAL ROOFING.—Alvin C. Kanneberg, Canton, O. (No model.) No. 492,513. Serial No. 316,890. Filed April 7, 1890.

HAY PRESS.—Washington H. Young, Indianapolis, Ind. (No model.) No. 492,652. Serial No. 446,874. Filed Sept. 26, 1892.

RECORDING WEIGHING SCALE.—Charles M. Bruff, Cummings, Ill. (No model.) No. 492,708. Serial No. 432,484. Filed May 10, 1892.

DESIGNS AND TRADEMARKS.

[Issued since our last publication.]

VAPOR ENGINES.—Union Gas Engine Company, San Francisco, Cal. Application filed Dec. 16, 1892. No. 22,625. Used since October, 1889. The word "REGAN."

FEED HOGS—DON'T SHIP CORN.

Secretary Rusk of the Department of Agriculture says regarding the probable profit of feeding corn to hogs at present prices. He desires to say that the prospect of large returns from judicious hog feeding has seldom been as bright as now. In average years it takes nine pounds of hogs, live weight, to bring the price of a bushel of corn. This year five pounds of hogs bring as much as a bushel of corn. If ten pounds of hogs are made from a bushel of corn—which may be taken as a fair return—then the present price of hogs would make corn bring about 85 cents a bushel if fed to those animals, which is about twice as much as it is now quoted at on the Chicago market. Instead of sending pigs and half-fed hogs to the market, as thousands have done, only to find that such animals were unfit for packing and would bring but a comparatively small price, these animals should be kept on the farm and fattened on the corn which is now so cheap in comparison with the present prices of pork.

VALUABLE BOOKS FOR GRAIN DEALERS.

The following standard works will be sent, postage paid, on receipt of prices given:

ROBINSON'S TELEGRAPH CIPHER.—The publishers have recently revised this excellent work, and we are now prepared to supply the trade. Cloth binding, \$1.50; leather.....\$2.00

WEIGH BOOKS.—Containing 125 perforated leaves with four weigh tickets and four stubs to each leaf well printed upon good paper. The books are well bound. Copies will be mailed to any address for.....\$1.00

CLARK'S VEST-POCKET GRAIN TABLES.—A very useful and handy little book for grain buyers; to be used in reducing to bushels any quantity of grain or seeds up to 100,000 pounds. Size 2½ by 8½ inches, 16 pages, Leatherette.....75c

KINGSLEY'S DIRECTORY is the only complete work containing the name and address of every firm engaged in the following lines of business: Milling, grain, flour and feed, hay and straw, butter and eggs, fruit and produce, malting, brewing, distilling and poultry. Over 500 pages, octavo, substantially bound in cloth. Indispensable to those who wish to reach the lines of business named above. Price.....\$3.50

POUNDS TO BUSHELS—These tables which show the number of bushels in any quantity from 20,000 to 70,000 pounds were compiled for the Chicago Grain Inspection Department. They are well printed on good paper and conveniently arranged for quickly finding the number of bushels in a carload. Each book contains ten leaves and each leaf is indexed at margin and printed on one side only. Each book is neatly bound in cloth. They will save clerks much labor and prevent errors in reduction. Price for "OATS" \$1.00; "BARLEY" \$1.00; "CORN AND RYE" \$1.00. The set.....\$2.50

GRAIN DEALERS' AND SHIPPERS' GAZETTEER.—A new publication containing the grain inspection rules for the states of Illinois, Wisconsin, Minnesota, Michigan, Ohio and Missouri, and a complete list of the names of grain dealers and shippers on twenty-five railroads which penetrate the principal grain growing territory of the country. The names were collected recently by the aid of the railroad companies, so the names of no retired firms are given, making it reliable and by far the best book of the kind published. It is well bound and contains 370 pages. Price.....\$3.00

DAVIS GRAIN TABLES.—These tables give the value of any number of bushels of produce weighing 60 pounds to the bushel from 25 cents to \$1.25 per bushel, and the value of any produce weighing 32, 48 and 56 pounds to the bushel at 15 cents to \$1.50. The book also contains Davis' Dockage Table which gives the amount to dock any load of wheat up to 600 bushels at 1½ to 5 pounds dockage. The book contains 219 pages of tables, printed on good paper, with large type, and well bound in cloth. The book is a new publication, and the arrangement of the tables is much more convenient than in some of the old publications. Price.....\$1.25

CLARK'S GRAIN TABLES.—This work is published in several different forms, for use in different lines of business. In these tables pounds are reduced to bushels so that a buyer can quickly determine the correct number of bushels in a load without doing any figuring. Their use effects a saving every day of more than time enough to pay for them. The edition intended principally for reducing team scale weights to bushels contains nine tables, and is bound in paper. Price 50 cents. This will be found invaluable to country buyers. A new edition, intended for shippers and commission merchants, reduces any quantity up to 64,000 pounds to bushels. It contains sixteen tables, and is neatly bound in cloth. Price.....\$1.50

For any of the above, address

MITCHELL BROS. Co., 184 and 186 Dearborn street, Chicago, Ill.

New Orleans exported during February, according to Robt. McMillan, chief grain inspector for the Board of Trade, 1,989,790 bushels of wheat and 763,201 bushels of corn, against 1,608,005 bushels of wheat and 1,554,531 bushels of corn in February last year.

B. & O.'S NEW THROUGH LINE.

PREPARING FOR THE IMMENSE TRAFFIC INCIDENT TO THE WORLD'S FAIR.

The management of the Baltimore & Ohio Railroad is preparing for an immense business in 1893 while the World's Fair is open in Chicago. The terminals at Chicago are capable of accommodating a much heavier traffic than is now being done, and important changes are being arranged for the handling of very heavy freight and passenger business to the West from New York, Philadelphia and Baltimore. New equipment for largely increased passenger business and an extensive stock of freight cars have been ordered. The various roads of the system will be improved by straightened lines, reduced grades, extra side tracks, and interlocking switches. The new line between Chicago Junction and Akron has shortened the distance between Chicago and tidewater twenty-five miles, and between Pittsburg and Chicago fifty-eight miles.

The distance between Chicago and Pittsburg and Chicago and Cleveland by the construction of the Akron line and the acquisition of the Pittsburg & Western line and the Valley Railroad of Ohio is about the same as via the Lake Shore from Cleveland to Chicago, and by the Pennsylvania from Pittsburg to Chicago. The alignment is to be changed and grades reduced to a maximum of twenty-six feet. It is expected that within twelve months the old Baltimore & Ohio through line between Chicago and the Atlantic Ocean will have passed away and the new line via Pittsburg be established, with no greater grades or curvature than on any of the trunk lines.

Work has already begun east of Pittsburg to meet improvements making west of Pittsburg. These improvements will consist of additional second and third tracks, a general correction of the alignment, and completion of the double track on the Metropolitan Branch. It is expected that the new through line will be ready simultaneously with the completion of the Belt Line through the city of Baltimore, which is intended to unite the Washington branch with the Philadelphia division and do away with the present line via Locust Point. Forty new and powerful locomotive engines were added to the equipment during the last two months, and others are in process of construction. The permanent improvements now under way and in contemplation involve the expenditure of some \$5,000,000.—*Baltimore American.*

Rice culture in Texas is attracting much attention by reason of the favorable conditions present for its successful conduction, and promises to become an important industry in that state. Its cultivation is being rapidly extended, as is evidenced by a comparison of the shipments from stations along the line of the Southern Pacific in Texas during 1891 and 1892. The latter year shows total shipments of 197,540,486 pounds, against 79,518,700 for the former, an increase of 118,021,786 pounds.

Miscellaneous * * * * Notices.

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Farm lands that will pay 25 to 50 per cent. on investment, for sale. Address

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OFFICE OF GALVESTON WHARF COMPANY'S ELEVATOR.
GALVESTON, TEXAS, Jan. 24, 1893.

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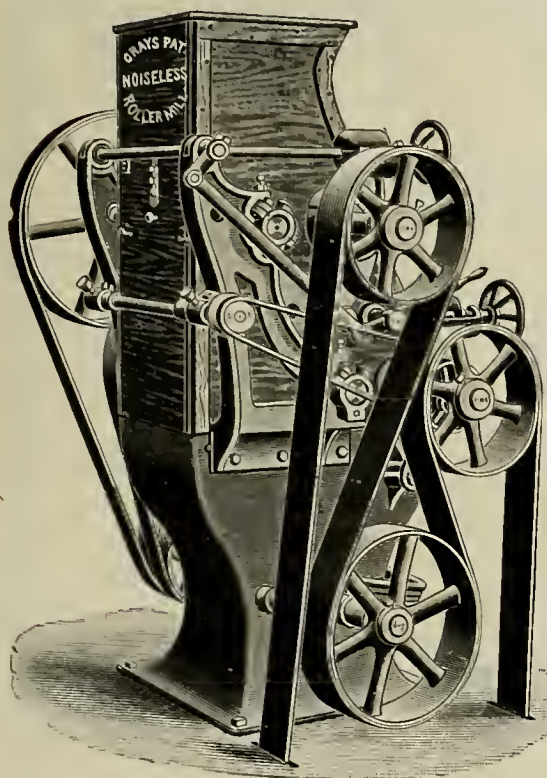
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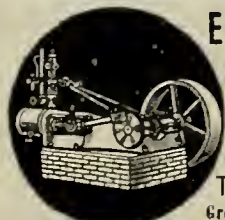


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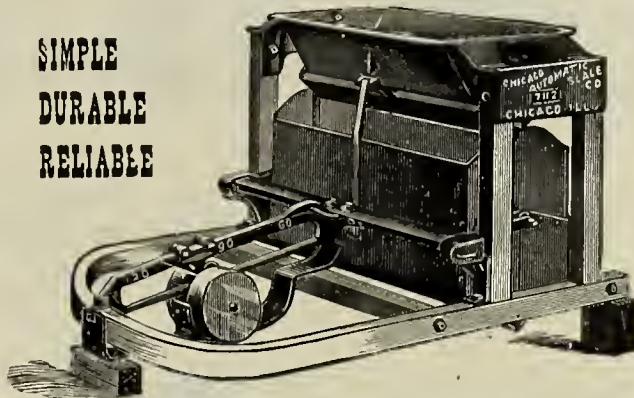
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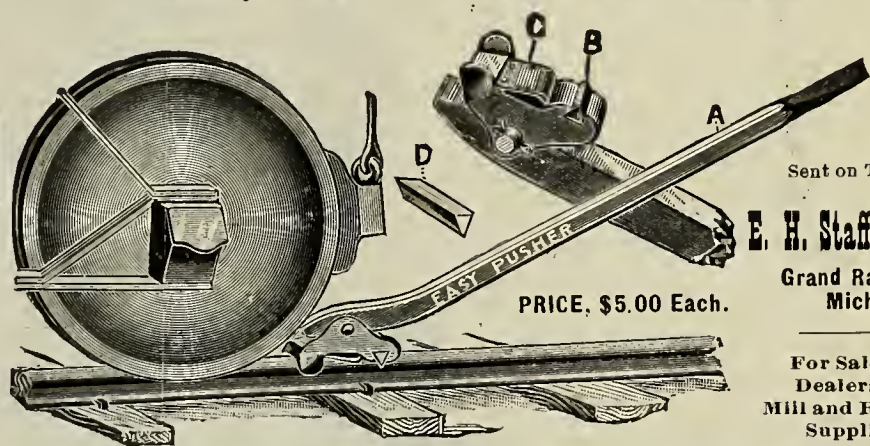
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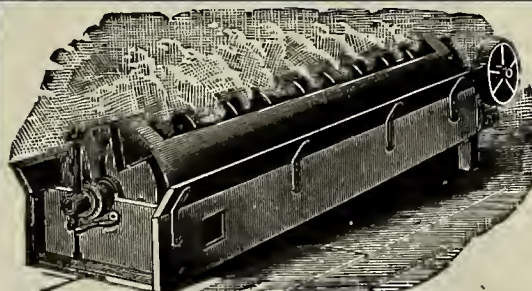


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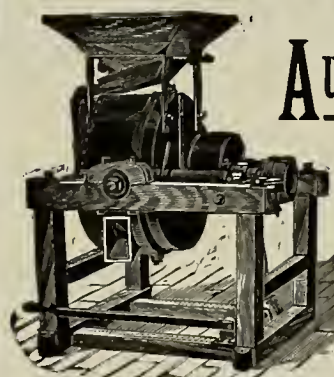


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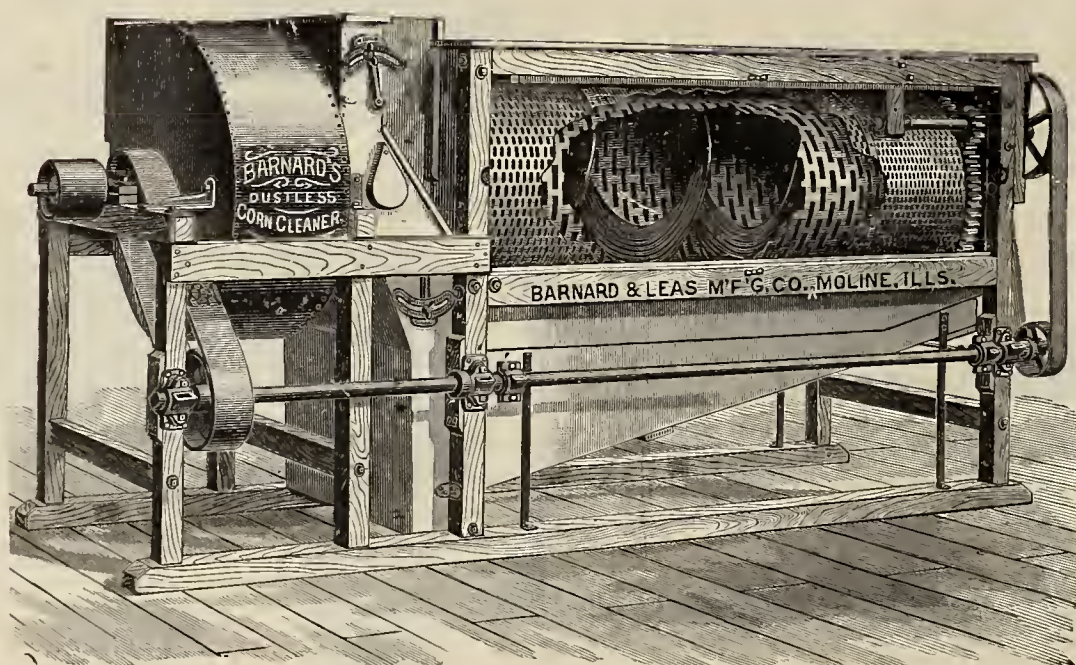
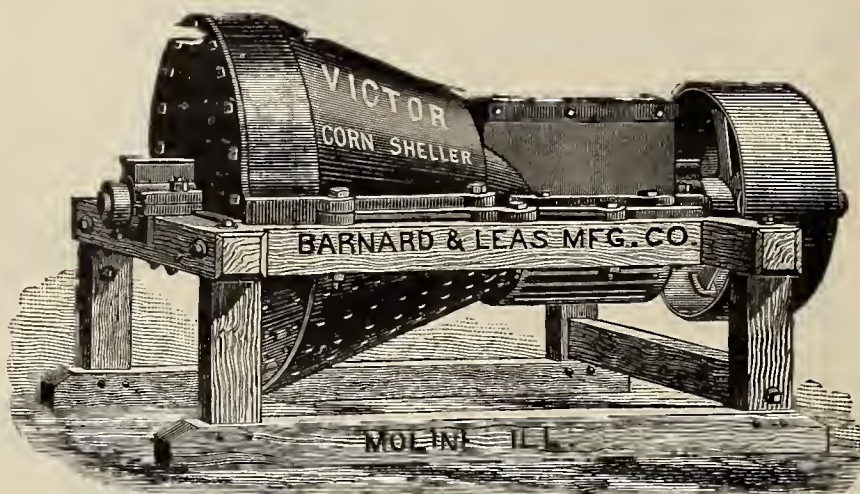
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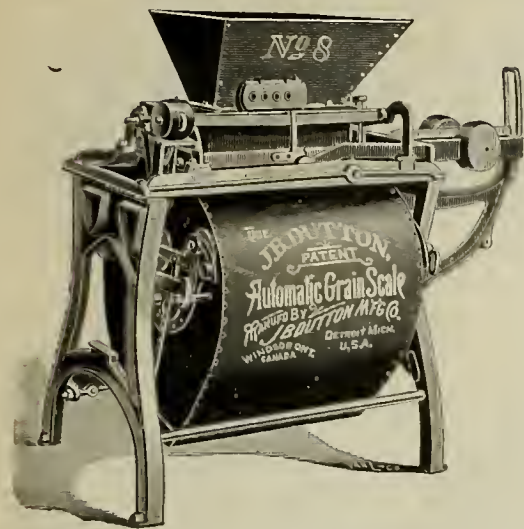
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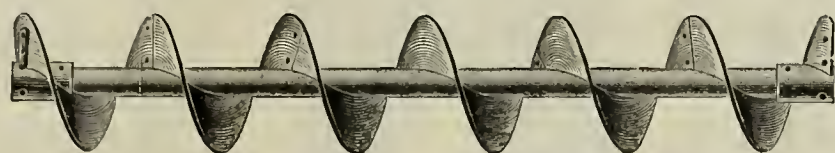
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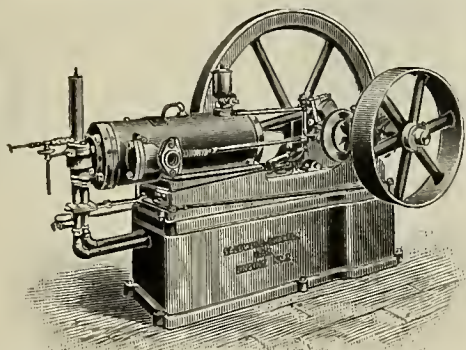
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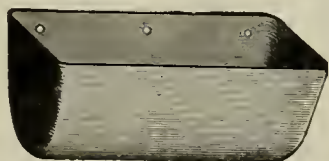
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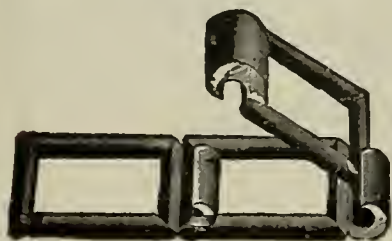
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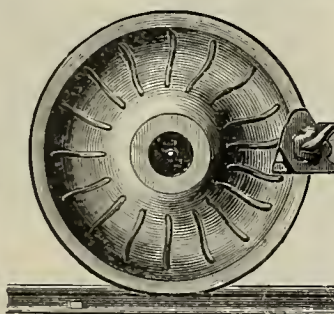
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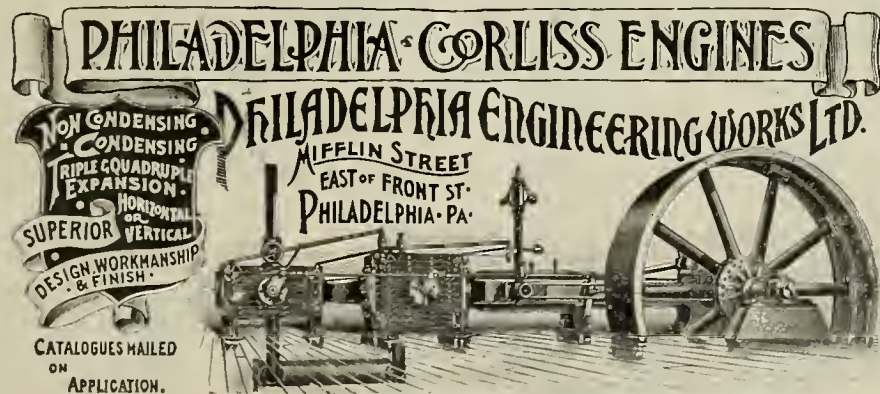


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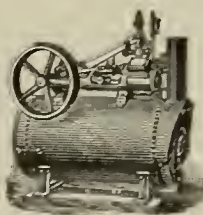
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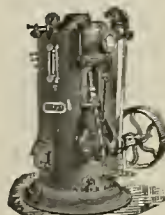
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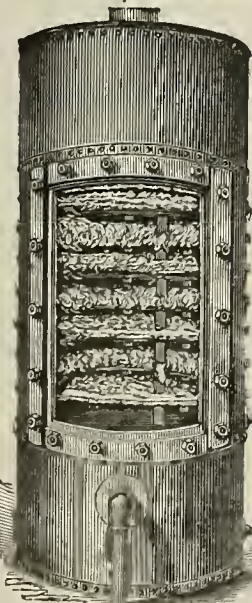
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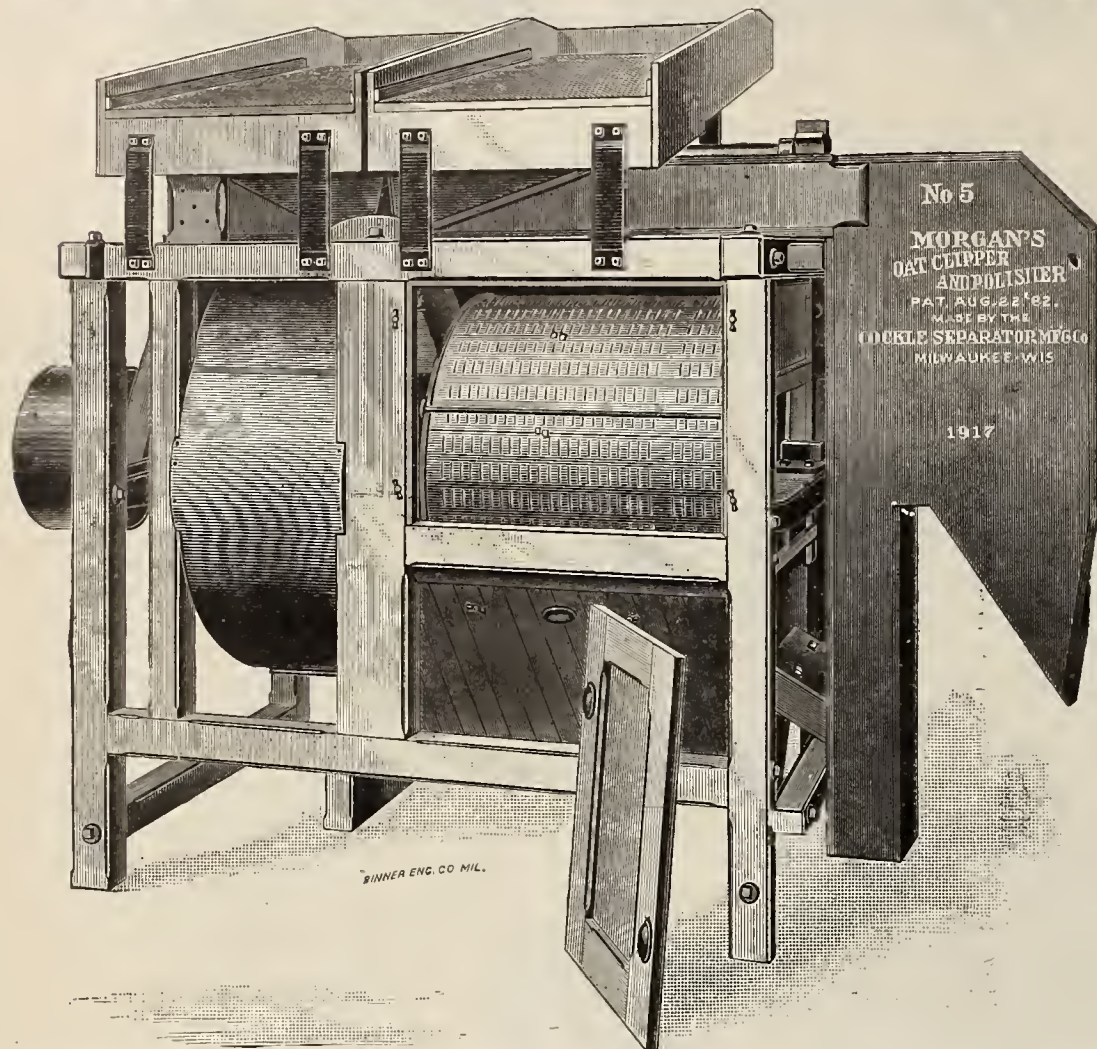
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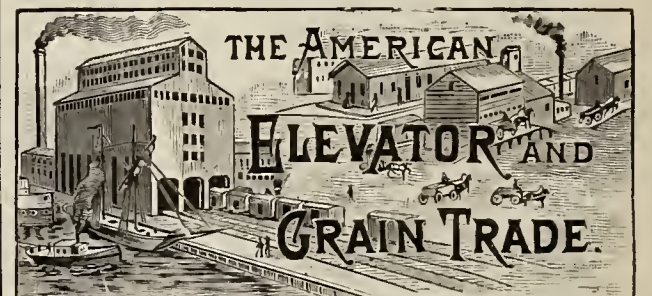
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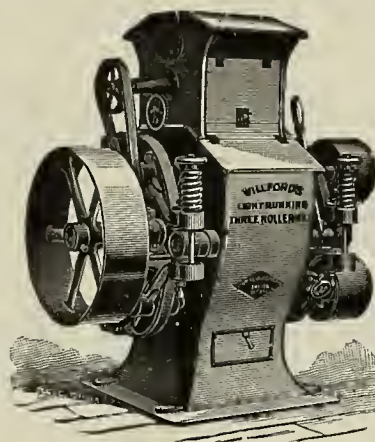
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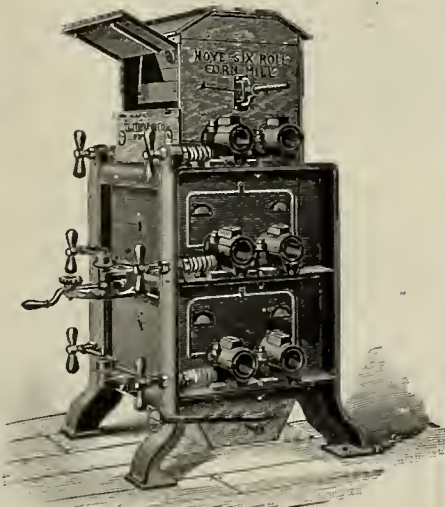
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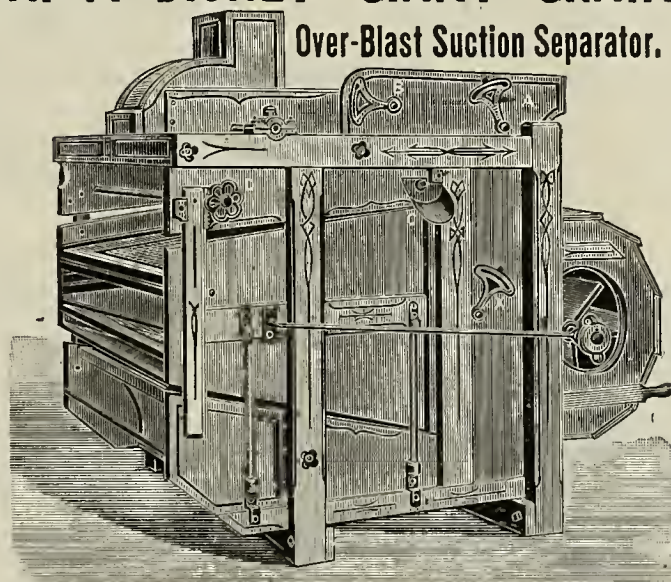
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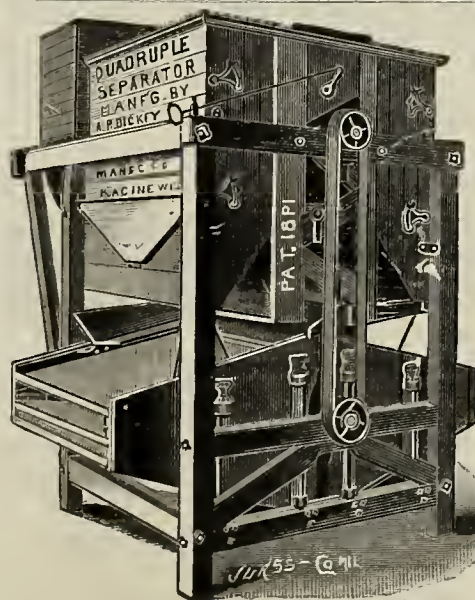
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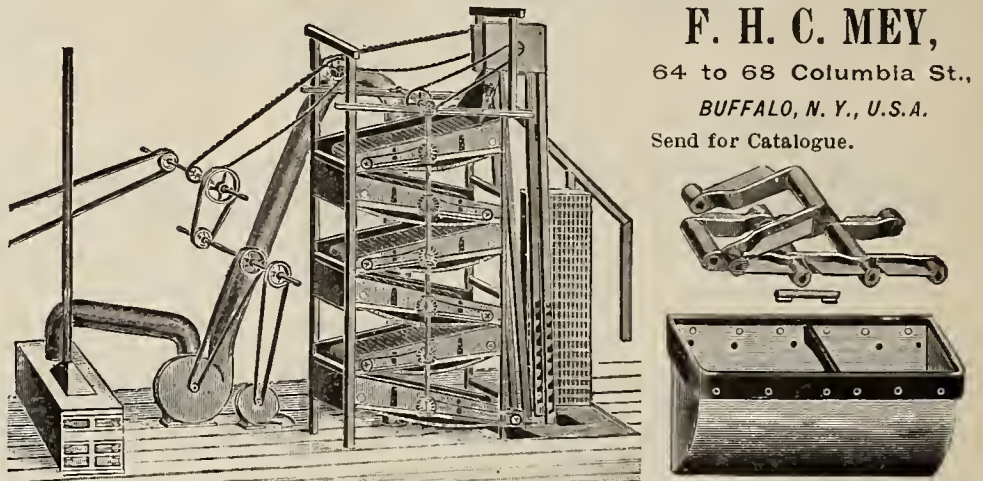
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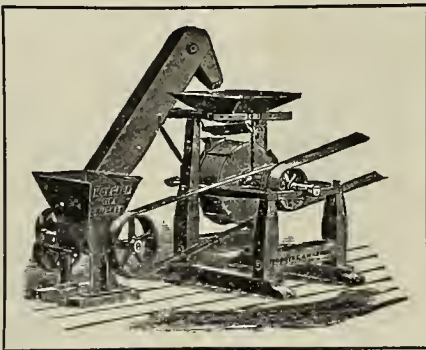
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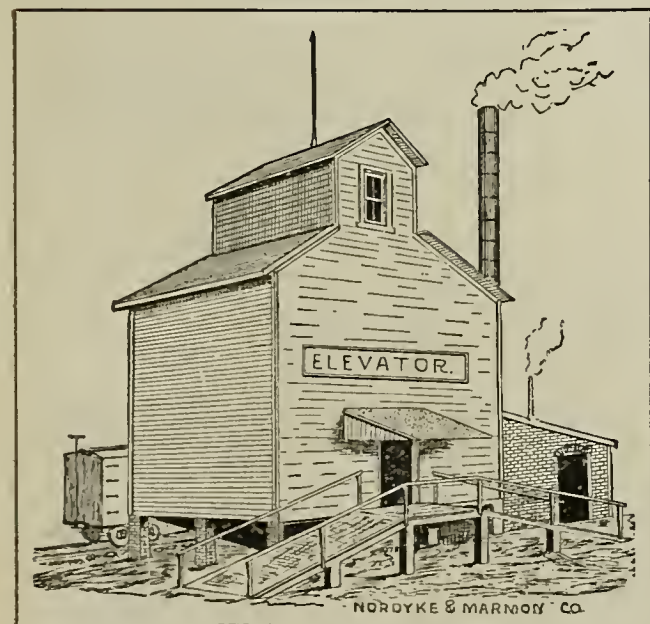


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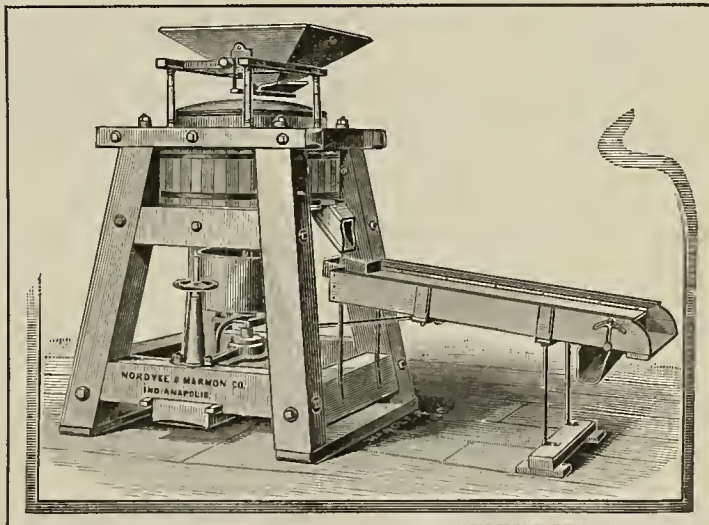
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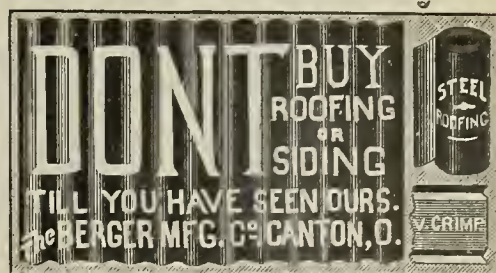
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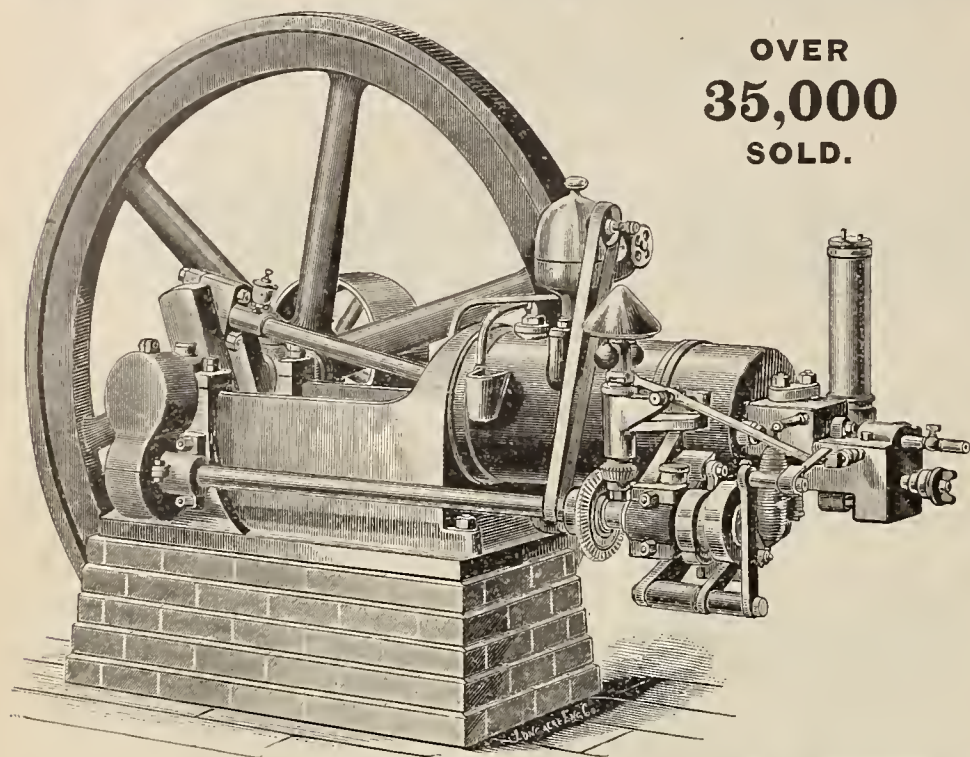
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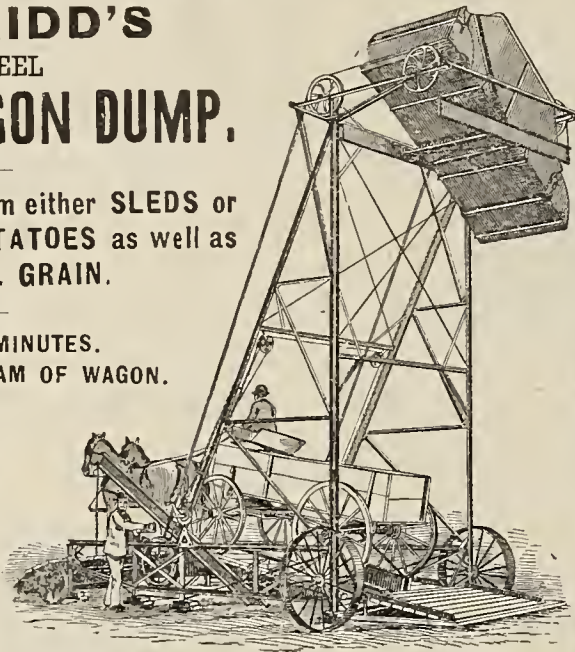
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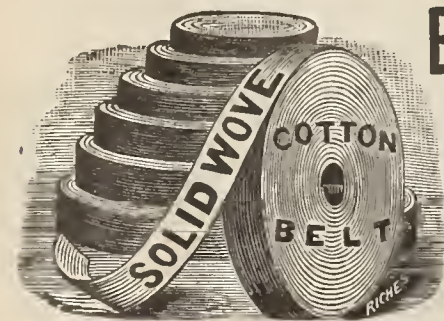
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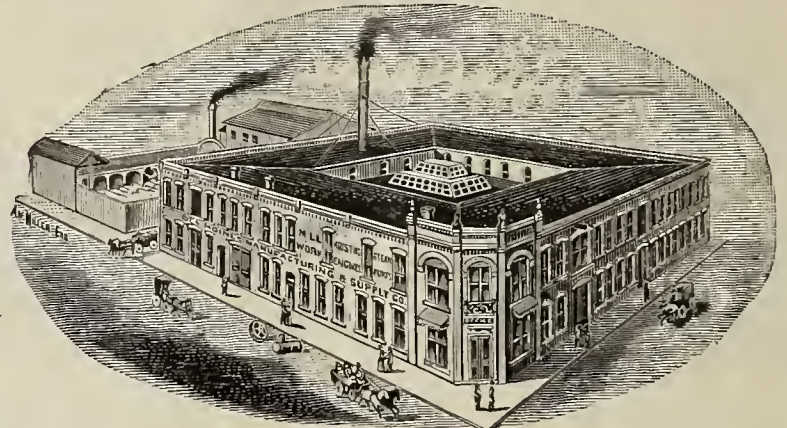
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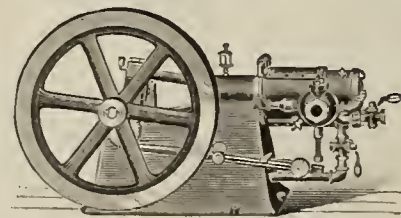
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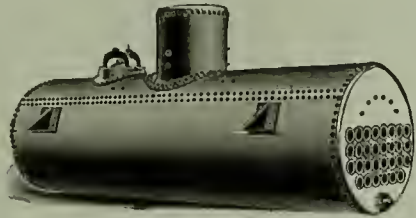
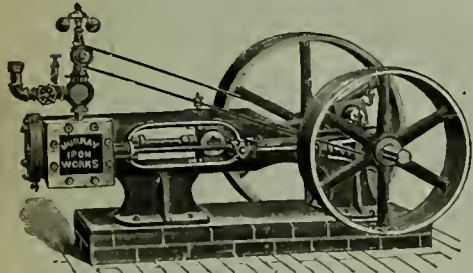
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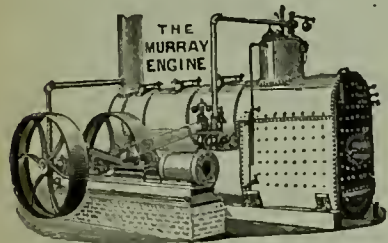
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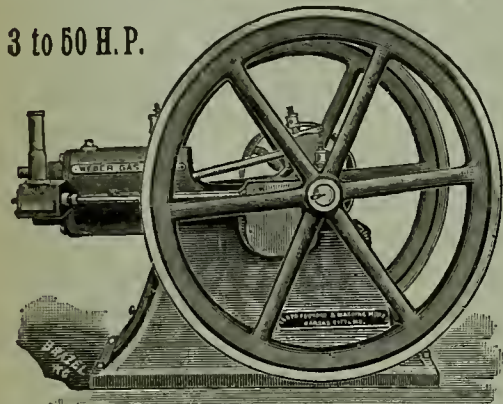
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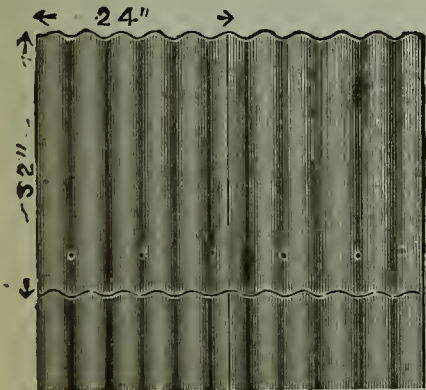
GENTLEMEN:—Yours received this a. m. asking how I like the Weber. In reply will say that we are using one of your No. 4, 12 H. P. Gasoline Engines in our elevator, and cannot say too much for it. I consider it the best power on earth. We run one set of elevators, 9x11-inch cup, 52 feet high, carrying 1,000 bu-hels of wheat per hour; also Pease End Shake Cleaner, which cleans 1,000 bushels per hour, and it don't take half the power of the engine to do the work. It has given us no trouble whatever. I can make an engineer out of any of our men in ten minutes. It costs us 75 cents per day of 10 hours, gasoline at 12 1/2 cents per gallon. Cannot recommend it too highly to anyone needing power.

Yours very truly,
A. F. JONES.

Mention this paper. Address Drawer 250.

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Surviving Partners of KNISELY & MILLER BROS.,
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Slate, Tin and Iron

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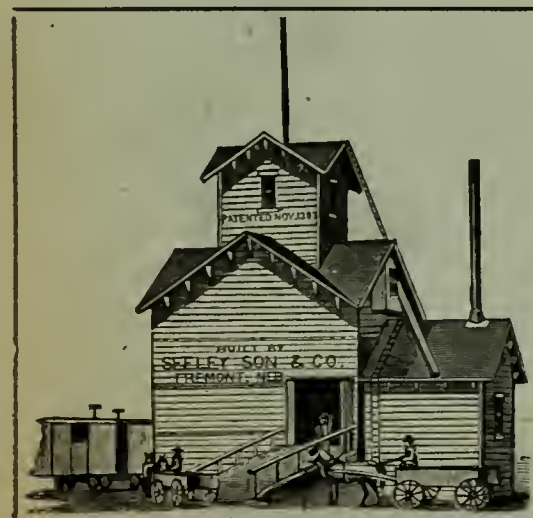
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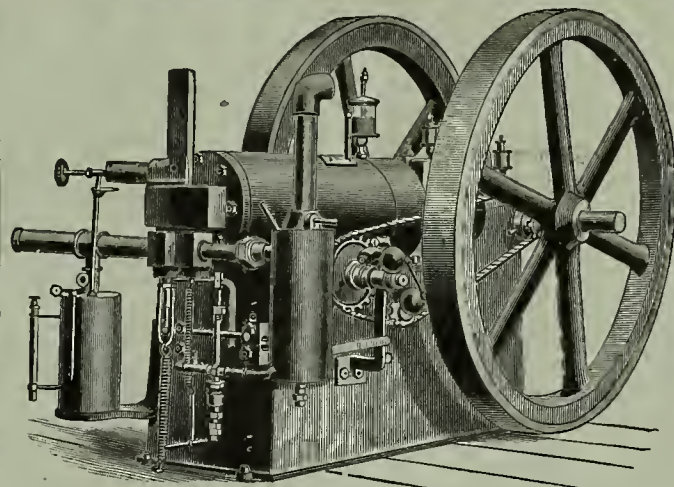
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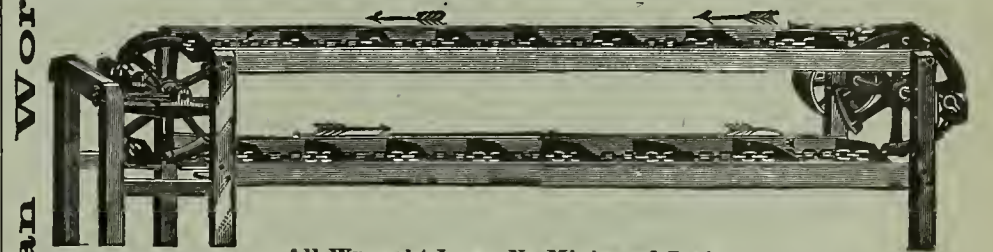
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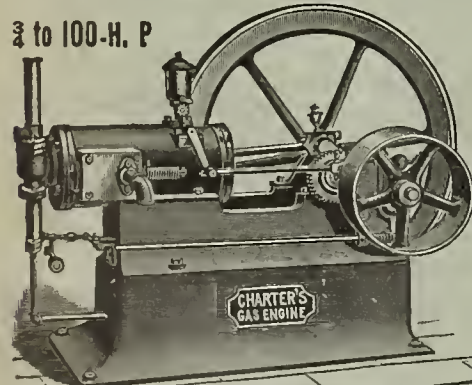
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Yours truly,
WILSON BROS. & CO

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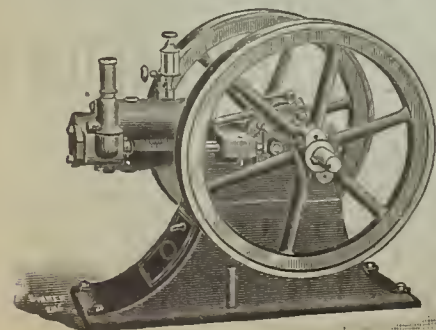
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Chas. Counselman, Chicago, Ill., 150,000 bushels.
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